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CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION

RICHARD SKLAR
GENERAL MANAGER

BUREAU OF ENERGY CONSERVATION
CONTRACT NO. 002

LIGHTING IMPROVEMENT
AND
ENERGY CONSERVATION PROJECT

- CITY HALL
- CITY HALL ANNEX
- HALL OF JUSTICE
- MAIN PUBLIC LIBRARY

FLINT A. NELSON
DIRECTOR
BUREAU OF ENERGY CONSERVATION

COPY NO.

_____ 1982

D

Each Bid is to be enclosed in an envelope bearing the superscription:

EF Proposal for Lighting Improvement and Energy Conservation Project"
21.3225 (Bureau of Energy Conservation Contract No. 002)
a578b

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INVITATION FOR PROPOSALS

Sealed proposals will be received in 949 Presidio Avenue, Room 111, San Francisco until 2:15 P.M. on _____ for the following public work:

LIGHTING IMPROVEMENT AND ENERGY CONSERVATION PROJECT

- CITY HALL ●HALL OF JUSTICE
- CITY HALL ANNEX ●MAIN PUBLIC LIBRARY

(Bureau of Energy Conservation Contract No. 002)

The work to be done consists of the design and installation of energy conservation lighting retrofit systems for existing light fixtures. The estimated cost is between \$100,000 and \$160,000.

All proposals must be made on the proposal form bound with the specifications for the proposed work.

To be eligible for award of the contract, each bidder must fully comply with the provisions of the "Notice to Bidders, Affirmative Action Program", a copy of which is attached to and made part of the contract documents.

A pre-bid conference will be held in Room _____, 949 Presidio Avenue, San Francisco, California at _____ on _____ to clarify such matters as the bidders may request and to cover the MBE and Affirmative Action requirements set forth in these specifications.

No deposit is required for specifications which may be obtained at 949 Presidio Avenue, Room 111, San Francisco, California 94115. For information, call (415) 921-2704.

A certified check or corporate surety bond of not less than ten percent (10%) of the amount bid must accompany each proposal. Each bidder shall submit with his bid the names and quotations of all subcontractors, if any, upon which the proposal is based.

The contract will provide for progressive payments.

The contract will be awarded on the basis of lump sum bid price.

Liquidated damages for failure to complete the work within the specified time are fixed in the specifications.

Copies of the prevailing rate of per diem wages, as determined by the Director of the State of California, Department of Industrial Relations, are on file in 949 Presidio Avenue, Room 150, San Francisco, and are available to any interested party on request.

NON-DISCRIMINATORY EMPLOYMENT PRACTICES Provisions of applicable City Ordinances are incorporated herein and, by reference, made a part of this contract as though fully set forth.

Right is reserved to reject any or all bids.

By order of the Public Utilities Commission.

ROMAINE A. SMITH
Secretary

INSTRUCTIONS FOR PREPARATION AND EXECUTION OF FORMS, AGREEMENT AND BONDS

- I. The bidder's attention is especially called to the following forms which must be executed in full as required; otherwise the bid shall be rejected:

(DO NOT DETACH PROPOSAL; SUBMIT ENTIRE BOOK)

- (a) Proposal signature sheet.
To be filled in and signed by the bidder.
- (b) Bond accompanying bid.
This form is to be executed by the bidder and the surety company unless bid is accompanied by a certified check.
- (c) Schedule of bid prices.
The unit prices bid must be shown in words and figures.
- (d) Experience and financial qualifications.
This form must be filled in with complete and comprehensive answers to all questions.
- (e) Subcontractors.
If the bidder intends to employ subcontractors, it is necessary that he furnish the information required on this form, in accordance with instructions contained herein.
- (f) Affirmative Action Program Employee Utilization Goals and Minority Entrepreneurship Goals (Page 4-m)
- (g) Minority Contractor List.
Bidder shall furnish information requested on page 9-a.
- (h) Affidavit.
To be subscribed and sworn to before a notary public.

- II. The following forms are to be executed after the contract is awarded:

- (a) Agreement.
To be executed by the successful bidder.
- (b) Performance bond.
To be executed by the successful bidder and his surety company.
- (c) Labor and material bond.
To be executed by the successful bidder and surety company.
- (d) Certificates of Insurance.
See "instructions to low bidder"

PUBLIC UTILITIES COMMISSION
City and County of San Francisco
Bureau of Energy Conservation
949 Presidio Avenue, San Francisco, Calif. 94115

INSTRUCTIONS TO LOW BIDDER - BEC JOBS

(Supplementing instructions on Page 3 of Contract)

The Contractor is required to execute three (3) copies of the contract furnished by the Public Utilities Commission and return them to the above address within ten (10) days of the Award. Each executed copy must contain the following:

1. Notarized Signatures. Notarized signature of Contractor on:
 - (a) The Agreement (Page 12)
 - (b) The Performance Bond (Page 15) (Include Bond No. and Premium charge)
 - (c) The Labor and Material Bond (Page 17) (Include Bond No. and Premium charged)
2. Corporate Authority. Corporate authority in form of resolution or certified extract from the minutes authorizing the signatory to sign on behalf of the corporation.
3. "dba" Certificate. If a company is "doing business as", a copy of the "dba" filed with and certified by the County Clerk. (The "dba" should be attached to the Agreement.)
4. Authority to Execute Bond. A Power of Attorney authorizing signatories of Performance Bond and Labor and Material Bond to execute bonds.
5. Insurance Coverage. (See also General Provision 16)
All certificates of insurance must contain a provision to the effect that this Bureau will be notified in writing at least ten (10) days before any policy lapses, is cancelled or is otherwise materially changed.

Contractor shall furnish the following Certificates of Insurance to the above address: (Please identify by contract number. The attached form or equivalent may be used.)

- a. Workmen's Compensation with Employer's Liability at least \$1,000,000.
- b. Comprehensive General Liability
Bodily Injury and Property Damage \$1,000,000 each occurrence
- c. Comprehensive Automobile Liability
Bodily Injury and Property Damage \$1,000,000 each occurrence

Certificates of Liability Insurance must contain:

1. The City and County of San Francisco, its Public Utilities Commission and each member thereof, and each of its officers and employees, as additional assured.
2. Cross liability coverage

- NOTES: 1. COPIES OF THESE INSTRUCTIONS SHOULD BE SENT TO EACH INSURER.
2. PLEASE IDENTIFY ALL INSURANCE STATEMENTS AND OTHER CORRESPONDENCE BY CONTRACT NUMBER.

CERTIFICATE OF INSURANCE

NAME, ADDRESS AND TELEPHONE OF INSURANCE AGENCY	CONTRACT NUMBER AND JOB TITLE
NAME AND ADDRESS OF INSURED	NAME OF CERTIFICATE HOLDER

This is to certify that: The policies of insurance listed below have been issued to the insured named above and are in force at this time. These policies name the City and County of San Francisco, its Public Utilities Commission and each member thereof, and each of its officers and employees, as additional insureds. These policies also include cross liability coverage.

TYPE OF INSURANCE	ISSUING COMPANY AND POLICY NUMBER	POLICY EXPIRATION DATE	LIMITS OF LIABILITY IN THOUSANDS (000)		
				EACH OCCURRENCE	AGGREGATE
GENERAL LIABILITY <input type="checkbox"/> Comprehensive Form <input type="checkbox"/> Premises--Operations <input type="checkbox"/> Explosion and Collapse Hazard <input type="checkbox"/> Underground Hazard <input type="checkbox"/> Products completed Operations Hazard <input type="checkbox"/> Contractual Insurance <input type="checkbox"/> Broad Form Property Damage <input type="checkbox"/> Independent Contractors <input type="checkbox"/> Personal Injury <input type="checkbox"/> Other			BODILY INJURY PROPERTY DAMAGE	\$ \$	\$ \$
			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$	\$
AUTOMOBILE LIABILITY <input type="checkbox"/> Comprehensive Form <input type="checkbox"/> Owned <input type="checkbox"/> Hired <input type="checkbox"/> Non - Owned			BODILY INJURY (EACH PERSON) BODILY INJURY (EACH OCCURRENCE) PROPERTY DAMAGE BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$ \$ \$ \$	
EXCESS LIABILITY <input type="checkbox"/> Umbrella Form <input type="checkbox"/> Other than Umbrella Form			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$	\$
WORKER'S COMPENSATION and EMPLOYER'S LIABILITY			STATUTORY (EACH ACCIDENT)		
OTHER					

NOTE: The Certificate Holder will be notified in writing at least _____ days before any policy lapses, is cancelled or is otherwise materially changed.

Date Issued _____

Signature and Title of
Authorized Representative

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION

PROPOSAL

Submitted by _____

Address _____

Attach Advertisement
Here

Date _____, 19____

TO THE PUBLIC UTILITIES COMMISSION
OF THE CITY AND COUNTY OF SAN FRANCISCO

Gentlemen:

In response to the attached advertisement calling for proposals for

I, the undersigned bidder, hereby propose and agree, if this proposal is accepted, to execute the proposed contract and to perform the work mentioned in said advertisement and described in the specifications referred to in said advertisement, and to furnish materials in accordance with said specifications, all under the supervision and to the satisfaction of the Public Utilities Commission of the City and County of San Francisco, for the following price payable in lawful money of the United States:

Total Amount _____

_____ Dollars (\$ _____)

Herewith is enclosed a bidder's bond or a certified check in the amount of _____

_____ Dollars (\$ _____)

payable to the City and County of San Francisco, pursuant to the requirements of the law relating to proposals submitted to the Public Utilities Commission of the City and County of San Francisco, and subject to all conditions imposed by such law.

(Signed) _____

NOTICE TO BIDDERS

1. The Bidder is hereby notified that the work under this contract shall be considered as a type (a) construction contract as outlined on page 4-h of the specifications. The goal of minority entrepreneurship for this contract is 25%.
2. On page 9-a, the Bidder shall list all minority contractors/suppliers that were contacted for quotes on the subcontract work or supplies related to the contract. If none were contacted, the Bidder shall state on page 9-a the reason(s) why none were contacted. Minority or women owned subcontractors that are used shall be listed with all other subcontractors on page 9 of the Bid Specifications.
3. The Bidder is hereby notified that a pre-bid conference will be held to cover the MBE and Affirmative Action requirements set forth in these specifications. (See Invitation for Proposals, page 1, for the time, date, and place of this conference.)

For Construction Contracts

PUBLIC UTILITIES COMMISSION - AFFIRMATIVE ACTION PROGRAM

PART I

GENERAL REQUIREMENTS

To be eligible for award of this contract, each bidder, except a member of a trade¹ association which has an approved Affirmative Action Nondiscrimination Program, must agree to comply with the following affirmative action requirements authorized by Section 12.B.4 of the San Francisco Administrative Code as amended. These minimum requirements, together with the Employee Utilization Goals, Minority Entrepreneurship Goals and the provisions of the Administrative Code, will comprise the Affirmative Action Program, and will be incorporated into the contract and all subcontracts relating or pertaining to this job, when the estimated cost of the contract is \$100,000 or more, unless waived in writing by the San Francisco Human Rights Commission (ERC).

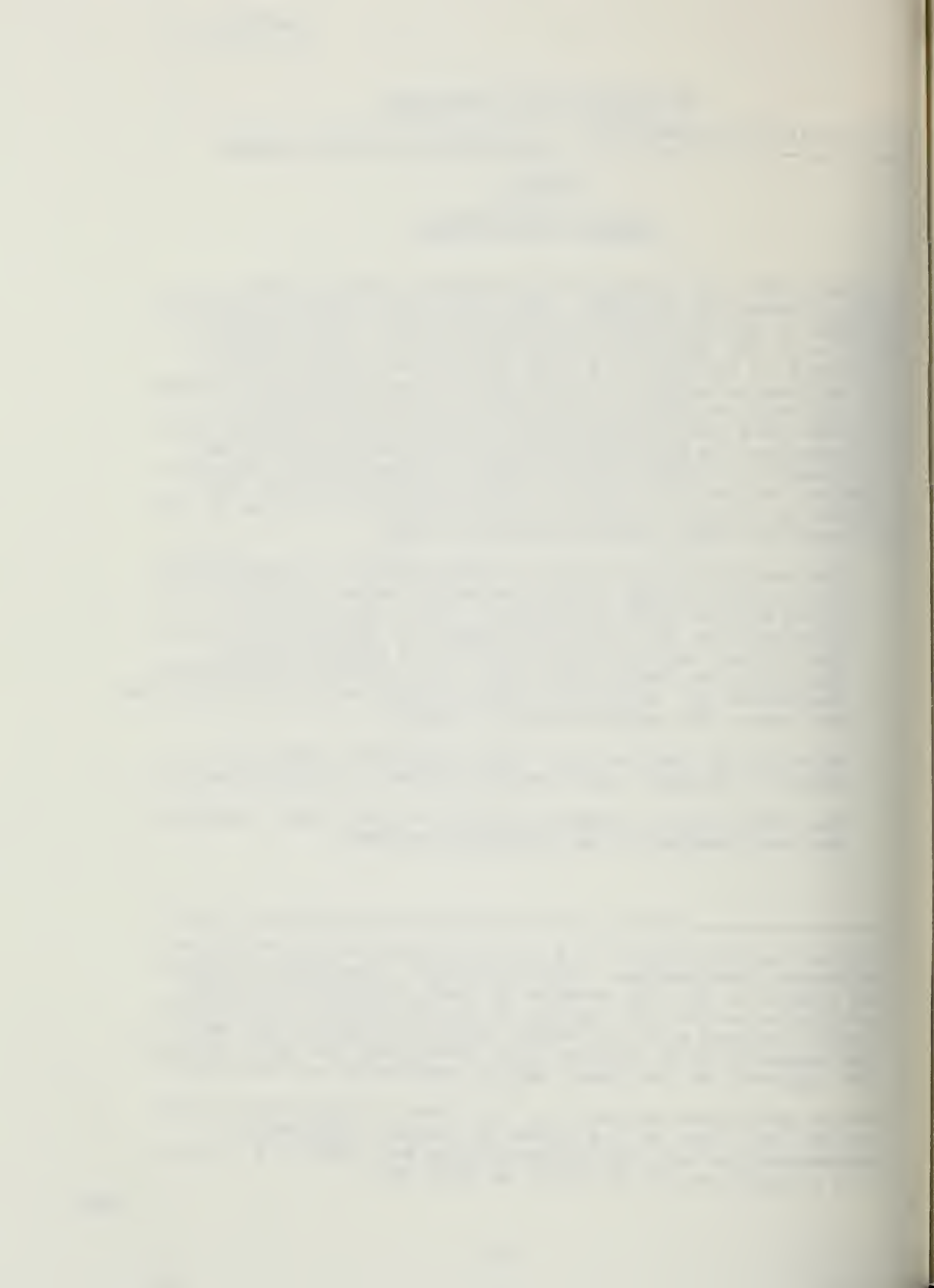
1. The contractor² will use its best efforts, directly and indirectly through every available means, to cause every Joint Apprenticeship Committee (JAC) covering its workforce on this job to cooperate in good faith and to the fullest extent possible with the Apprenticeship Opportunities Foundation (AOF), 400 Alabama Street, San Francisco, CA 94110 and other groups recruiting minorities and women for apprenticeship training.

Minority is defined as: Black, Hispanic, Asian and Pacific Islander, and American Indian or Alaskan Native.

The contractor's efforts toward this end shall include, but not limited to the following actions.

¹As provided by Section 12.B.4 (a) of the Nondiscrimination Ordinance, contractors, subcontractors, sub-subcontractors, and suppliers who are members in good standing of a trade association which has negotiated an affirmative nondiscrimination program with the Human Rights Commission may make this association's program their commitment for this contract upon approval by the Human Rights Commission and the P.U.C.

²Unless otherwise indicated in this text, "Contractor" shall include and refer to the prime or general contractor, subcontractors and sub-subcontractors and suppliers (those with a workforce on the site) on this job.



- a. The contractor will request every JAC covering its workforce to notify the AOF and other groups recruiting minorities and women for apprenticeship training, in writing at least forty-five (45) days before any applications are received by the JAC for an apprenticeship examination of: 1) the inclusive dates when applications for such examination will be received; 2) the date of such examination; and 3) the entry qualifications for the pertinent apprenticeship program. Any changes in the date of examination must be communicated by the JAC to the AOF and other groups recruiting minorities and women for apprenticeship training not less than two (2) weeks before the rescheduled date of such examination. If the JAC fails to properly notify the AOF and other groups recruiting minorities and women for apprenticeship training as required herein, the contractor shall do so.
 - b. The contractor will utilize the AOF and other groups recruiting minorities and women for apprenticeship training as its recruiting source for apprentices on this job to the fullest extent permitted by any collective bargaining agreement or other contract or understanding to which the contractor is a party, and will so notify every JAC covering its workforce.
2. The contractor will actively seek out minorities and women to inform them of apprenticeship opportunities. If requested by the PUC, the contractor will participate in good faith in meetings or workshops organized by the AOF and other groups recruiting minorities and women for apprenticeship training for this purpose.
3. The contractor agrees that the ratio of apprentices to journeymen to be employed by the contractor on this job will at no time be less than the ratio required on public works projects by California Labor Code Sec. 1777.5, unless any agreement to which the contractor is a party or any applicable regulation or law requires a lower/higher ratio. A goal of fifty percent minority apprentices by craft is established for this contract as the standard against which the contractor's efforts will be measured.
4. In the event that the contractor has need or occasion during the course of performance under this contract to employ new or additional clerical, bookkeeping, drafting, supervisory, maintenance or other office personnel, the contractor will use its best efforts to hire qualified

or qualifiable minority individuals, and women in categories where they are underrepresented. Upon any opening in such job classifications or positions, the contractor will notify in writing the Contract Compliance Section of the P.U.C.

5. The contractor will submit monthly reports describing in detail the composition of its workforce by race or ethnicity or sex on this job and, if requested by the PUC, of its entire workforce (i.e., whether or not employed on this particular job) on forms to be provided by the PUC. The PUC may also require weekly certified payroll reports as supporting documents when necessary. Failure to supply such reports pertaining to the preceding month on or before the seventh day of each month may constitute a violation of the nondiscrimination ordinance, unless the PUC specifies in writing to a different reporting schedule.
6. As additional material obligations of the Affirmative Action Program, the contractor will:
 - a. Promote and upgrade minority and female employees of demonstrated individual merit to higher level, supervisory, and better paying positions within his workforce;
 - b. In cooperation with any and all apprenticeship programs take other positive steps to facilitate the admission into the crafts of minority and female individuals who are older than the traditional or normal apprenticeship age, and to grant advance standing or credit on the basis of previously acquired experience, training, skills, or aptitude, as authorized by 29 CFR 30.4 (c) (8), and Sec. 5 (c) of the State California Plan for Equal Opportunity in Apprenticeship.
 - c. Make every reasonable effort to hire and train minority and female individuals with experience relevant to the craft, but without formal training, to become journeypersons.
 - d. Upon request, report to the Contract Compliance Section of the PUC as to any acts required by this paragraph and the results thereof.
7. The contractor, his subcontractors and sub-subcontractors or their authorized representatives will actively

participate in periodic compliance review meetings with a representative of the PUC to review progress and problems concerning the implementation of this Affirmative Action Program.

- a. It is the responsibility of the general contractor to notify and to require the attendance of his subcontractors and sub-subcontractors at such meetings.
 - b. At such meetings or within a reasonable time thereafter, the contractor, its subcontractors and sub-subcontractors will supply all information relating to their affirmative action efforts requested by the PUC representative.
 - c. When requested by a representative of the puc at the job site, the contractor, his subcontractors and sub-subcontractors will supply any information either at the site or within five (5) days thereafter, relating to the implementation of this Affirmative Action Program.
8. In the event that a substitution of subcontractors, sub-subcontractors or suppliers becomes necessary, the general contractor is required to obtain the PUC's approval of the substituted subcontractors' Employee Utilization Goals (Attachment I) prior to that contractor being permitted on the job.
 9. The contractor further agrees, to the best extent possible, in meeting the minority employment goals, the ethnic groups distribution shall substantially reflect the current ethnic population of the City and County of San Francisco.

PART IIEMPLOYEE UTILIZATION GOALSNOTICE OF REQUIREMENTFOR SUBMISSION OF GOALS TO ENSUREEQUAL OPPORTUNITY IN EMPLOYMENT

In accordance with Sec. 12.B.4 of the San Francisco Administrative Code, in order to be eligible to bid or have a bid considered for the work or works of improvement contemplated by this contract, the prospective general contractor shall complete and execute the Employee Utilization Goals under Attachment I for its own workforce and submit these documents as part of its bid. After the opening of bids, the apparent low bidder shall cause all of its subcontractors, sub-subcontractors and certain suppliers (those expected to have a workforce at the job site) whose contract amount is \$10,000 or more to submit completed and signed Attachment I covering their respective workforces, all such documents to be submitted to the Awarding Agency before 5:00 p.m. of the fifth day (or the next business day thereafter) following bid opening, unless a request for extension of time is granted by the Awarding Agency. Should for any reason the contract be or contemplated to be, awarded to other than the apparent low bidder, the new apparent general contractor shall cause all of its subcontractors, sub-subcontractors and certain supplier to submit the required Attachment I within the time limit set by the PUC or the Awarding Agency.

The Employee Utilization Goals submitted by the apparent general contractor and its subcontractors, sub-subcontractors, and suppliers must meet the approval of the PUC prior to the award of the contract to the apparent general contractor and prior to any subcontractors, sub-subcontractors or suppliers being permitted on the job site.

In order to be acceptable the employment goals submitted by such bidder, including subcontractors and sub-subcontractors must not be less than the minimum ranges listed on the following page.

NOTE: The basis used in the establishment of minority goals was the actual minority participation on City construction contracts monitored by the HRC and PUC for the years 1973-79 plus the continuation of the rate of growth established in the past 4 years, including the increase in minority apprentices. Goals for women apprentices were based on current and projected availability, current and projected participation, and a need for stimulating increases in both the availability and participation of women in apprenticeship. For purposes of this program, goals will be construed as minimum requirements by the PUC in evaluating a contract bid.

12/79

Minimum goals for the employment of minority persons, and women apprentices for the following period in percentage ranges in each trade within each group:

From January 1, 1979
Until Further Notice

Group A - Trades:

Boilermakers)	
Electrical Workers)	
Elevator Constructors)	
Mill Wrights)	
Pile Drivers	)	33% - 35%
Plumbers/Steam Fitters)	
Sprinkler Fitters)	

Group B - Trades:

Bricklayers/Stone Masons/)	
Terrazzo Mechanics)	
Carpenters)	
Carpet/Soft Tile Workers)	
Glaziers)	
Iron Workers:)	
Structural)	
Reinforcement Bars)	
Lathers/Plasterers/Drywall)	
Installers)	
Mill Workers)	
Operating Engineers	)	40% - 42%
Painters/Tapers)	
Sheet Metal Workers)	
Terrazzo Helpers)	
Tile Setters)	
Tile Helpers)	
Hod Carriers:)	
Tending Bricklayers)	
Tending Plasterers)	
Construction Teamsters)	

Group C - Trades:

Asbestos Workers)	
Cement Masons	)	50% +
Roofers)	

Group D - Non-Crafts:

Gunitite Workers)	
Sandblasters	)	50% +
Laborers)	

Employment Goals for Women
Apprentices:

15% - 10%

PART III
MINORITY BUSINESS ENTERPRISE

GENERAL--This project is subject to Part 23, Title 49, Code of Federal Regulations entitled, "Participation by Minority Business Enterprise in Department of Transportation Programs", required by State, Federal and local regulations.

These goals are established to ensure equal opportunity in entrepreneurship in City construction and were based on such factors as:

- (a) Current minority contractor participation in City contracts;
- (b) Projected availability and bonding capacity of minority contractors in the area;
- (c) Testimonies and other research data gathered by the staff of the Human Rights Commission (HRC) and Public Utilities Commission.

In evaluating bids, these goals will be construed as minimum requirements.

1. In order to ensure the use of contractors, subcontractors and suppliers who are minority or female and are socially and/or economically disadvantaged, each bidder shall make every reasonable effort to include minority-owned and/or women-owned contractors, suppliers and, if applicable, in contracts involving earth work and hauling activities, minority and/or female licensed truck brokers and owner-operators on the job. All bidders, therefore, are required to complete the final paragraph of Attachment I indicating its goal for the total dollar value in terms of a percentage of the base bid, subcontracts, material purchases, and trucking service that will be performed by minority-owned or women-owned firms, either directly or through joint venturing under the following types of construction contracts:

- (a) For general building construction contracts which shall include erection, enlargement, alteration, structural improvement, demolition, site or street improvement, the minimum acceptable goal ranges in accordance with the estimated total amount per contract are as follows:

<u>Minority Entrepreneurship Goals</u>			<u>Estimated Contract Amount</u>
I	25%	)	\$ 100,000 - \$ 999,999
II	\$250,000 + 22% of the amount over \$1,140,000	)	\$ 1,000,000 - \$ 2,999,999
III	\$666,000 + 18% of the amount over \$3,670,000	)	\$ 3,000,000 - \$ 5,999,999
IV	\$1,080,000 + 14% of the amount over \$7,720,000	)	\$ 6,000,000 - \$ 9,999,999
V	\$1,400,000 + 10% of the amount over \$14,000,000	)	\$10,000,000 - \$14,999,999
IV	10%	)	\$15,000,000 - or more

- (b) In contracts predominantly involving heavy construction, such as, tunneling, large sewer work, and other contracts requiring unusual equipment or material, the bidder is also required to take affirmative steps to insure the inclusion of minority and/or women contractors and minority and/or women truck owners and operators, directly or through joint venturing. In order to be acceptable, the bidder must meet the goals for minority entrepreneurship, set forth by the Public Utilities Commission in each request for bid. However, at the discretion of the Public Utilities Commission, if no such goals are issued, the goals shown under Paragraph 1A shall be applicable.
2. A qualifying Minority Business Enterprise (MBE) is a business, whether it is a company or corporation, of which at least 51 percent of the interest is owned and controlled by one or more socially and economically-disadvantaged minority group members who are citizens of the United States, where citizenship is required by federal or state regulations. Otherwise, the 51 percent may be owned or controlled by citizens or legal permanent residents of the United States who are socially or economically-disadvantaged minority group members. As used in this contract, a "woman-owned business" concern means a business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management. "Women" means all women business owners.
3. In order to qualify as a socially and economically disadvantaged MBE or women-owned business the average annual gross receipts for the last three fiscal years preceeding the bid must not exceed the following in the categories listed:
- (a) General building or general engineering contractor - \$7 million
 - (b) Specialty contractor - \$4.2 million
 - (c) Transportation/trucking broker - \$4.2 million
 - (d) Professional Services - \$1 million
 - (e) Janitorial/custodial services - \$700,000
 - (f) Supplier/manufacturer - no gross receipts limit; number of employees should not have exceeded fifty (50) in each of the last three fiscal years.
4. There are limited exemptions to the gross annual receipt limits set in item number 3, but only if all of the following conditions are met:
- (a) The contract amount is 15 million or more;
 - (b) No qualifying MBE in this geographical area is expected or available to bid;
 - (c) The non-qualifying MBE has appealed formally to the PUC and/or the Human Rights Commission for exemption and it was granted.

5. Minority or/woman ownership and control can be measured by, but is not limited to the owner:

- (a) Being an employee, officer or director of the business;
- (b) Having control over the management of the business;
- (c) Being an authorized check-signer on the firm's bank accounts;
- (d) Being involved in deciding what jobs the firm will take;
- (e) Having control over setting salaries and bonuses;
- (f) Having control of profit sharing, pension and stock option plan.

6. Majority contractors and MBE's will be required to disclose information about their arrangements in the form of an Affidavit Form Nos. 3 and 4 (provided herein). In determining whether the involvement of the MBE is bona fide, the following will be considered:

- (a) The minority participant must be utilized to perform work or supply products;
- (b) The work or product provided by the minority participant should be the same or similar type of work performed or product supplied by the minority firm in the normal course of its business. An MBE must perform a commercially useful function, i.e., must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work;
- (c) If the amount of work subcontracted out by an MBE subcontractor or supplier exceeds 70 percent of his subcontract, the contract will not be credited towards meeting the MBE requirement. An MBE joint venture partner must be responsible for a clearly defined portion of the work to be performed, in addition to satisfying requirements for ownership and control. The MBE joint venturer must submit PUC's Form Nos. Three and Four.
- (d) Non-compliance by the Contractor with the requirements of the regulations constitutes a breach of this contract and may result in termination of the contract or other appropriate remedy for such breach.

7. Minority suppliers will be given full credit for the purchase and/or resale of a product, if a firm takes possession of the product and assumes risk of its delivery. Otherwise, if the minority supplier is used as a broker or an agent, only the amount of the commission or 5% of the purchase price, whichever is greater, will be allowed for MBE credit.
8. In a bid where a majority/minority joint venture is formed to fulfill partially or wholly the required goal at prime contractor level, the value towards meeting the MBE goal shall be the percentage of the minority partner's share multiplied by the contract amount after any and all work to be done by listed subcontractors are deducted from the base bid price. If a joint venture is formed at subcontract level, the value of MBE participation is determined by the percentage of minority ownership multiplied by the subcontract amount.
9. A management plan for the joint venture's project activity shall be submitted to the awarding agency before 5:00 P.M. of the fifth business day following bid opening, unless a request for an extension of time is granted by the awarding agency. The joint venture management plan must be clear and specific and shall include, but not be limited to the following:
 - (a) Identify the financial contribution of each partner;
 - (b) List personnel and equipment used by each partner;
 - (c) A detailed breakdown of the responsibility of each partner;
 - (d) Explain the handling of financial transactions and record-keeping procedures;
 - (e) Explain how the profits shall be distributed.

This plan shall be subject to the approval of the PUC/HRC.

10. The contractor shall ensure that 50 percent (dollar volume) of the hauling of freight, excavated or fill material including dirt, sand and rock, calculated on a cumulative monthly basis be subcontracted with and performed by MBE and/or female trucking firms. The fact that the trucking will be subcontracted with an MBE trucking brokerage firm will not, in itself, satisfy this requirement. Only the brokers fee or 5% which ever is higher will count towards this requirement.

11. In addition to the provisions in Section 9, "Award of Contract", and Section 11, "Execution of Contract", of the General Provision, after the opening bids and identification of apparent low bidder(s) the contractor shall cause each of his subcontractors of all tiers and MBE suppliers to submit a completed and signed Attachment I covering their respective work forces to the Awarding Agency, before 5:00 P.M. of the fifth day (or next business day, thereafter) following bid opening, unless an extension of time is granted by the Awarding Agency. The apparent low bidder also shall cause Affidavit Forms Nos. 3 and 4 (PUC), and the joint venture management plan previously cited to be completed and submitted to the Awarding Agency at this time. If for some reason the award is not made to the apparent low bidder the same requirements stated above will hold for whoever is awarded the contract. Such a business will have 5 business days to supply Forms 3 and 4. (Date certain to be set by the Contract Compliance Office of the PUC.)

SATISFACTION OF MBE REQUIREMENTS

12. A bidder who is within 2% of the goal set forth in the bid specifications and establishes to the satisfaction of the contract compliance office of the PUC, that failure to meet the goal completely was not due to a lack of reasonable effort, and that he/she will make up the difference in some legal fashion within five days after the bids are opened, shall be deemed to have met the goal. The PUC reserves the right to reject all bids for failure to meet goals, and/or to award to other than the low price bidder. The award of contract, if it is awarded will be to a responsible bidder determined by the adherence of the rules and regulations set forth in the bid specification.

In accordance with the Federal MBE Regulations (Section 23.45 (f) (2), Part 23, Title 49.CFR):

- (1) No substitution of an MBE subcontractor shall be made at any time without the written consent of the Department and;
- (2) If an MBE subcontractor is unable to perform successfully and is to be replaced, the contractor will be required to make good faith efforts to replace the original MBE subcontractor with another MBE subcontractor.

Bidders must demonstrate a reasonable effort to meet the goals set forth in this contract. For further information and/or assistance, contact the Public Utilities Commission's Minority Business Enterprise Office at 558-2388/2389.

ATTACHMENT I

- The following is hereby submitted by the undersigned, bidder or subcontractor as its goals for minority workers (Spanish Origin, Black, Native American Indian, Asian American) and women apprentices in trades to be achieved by the bidder or subcontractor on this job. The commitment of goals shall be in terms of percentage in relationship to the total work hours in each trade of the on-site workforce and shall be applied on a continuous month-to-month basis during the performance of this contract in each of the applicable trades entered below.

From January 1, 1979 - Until Further Notice

<u>CLASSIFICATION BY TRADE</u>	<u>Minority Persons</u>	<u>Women Apprentices (As a percent of total apprentice hours</u>
_____	_____ %	_____ %
_____	_____ %	_____ %
_____	_____ %	_____ %
_____	_____ %	_____ %
_____	_____ %	_____ %
_____	_____ %	_____ %
_____	_____ %	_____ %
_____	_____ %	_____ %
_____	_____ %	_____ %
Laborer	_____ %	n/a
Teamster	_____ %	n/a

- In Compliance with Part III of the PUC Affirmative Action Program, the undersigned bidder hereby submits for the total dollar value of work to be contracted, subcontracted or supplied on this contract by minority owned firms(s) a goal of _____ % of the total base bid.

Firm, Partnership or Joint Venture

By: _____

Name of Authorized Representative
(Signature)

Title of Authorized Representative

Telephone

Firm, Partnership or Joint Venture
Address

2/79

PUC FORM NO. 3

e of California

ty of _____

_____, Being duly sworn, deposes and
(Name and Title)

contingent upon award of _____
(Name of Project)
_____ will award subcontracts or purchase
(Name of Contractor)

rs to the following minority-owned firms: (If the firm is a
t venture, attach a copy of the joint venture agreement.)

[illegible]

Owner or Authorized Representative (Name)

(Title)

described and sworn to before me on

19

Notary Public

A F F I D A V I T

PUC, FORM NO. 4

(Minority-owned business enterprise certification
form to be submitted by each minority firm)

State of California, County of _____

_____, Being duly sworn,
(Owner or authorized representative and Title)

says that _____ will award
(Name of General Contractor)

a subcontract or a purchase order in the amount of \$ _____
(Circle whichever is appropriate)

to _____ Lic. # _____
(Name of your firm and address)

FORM OF OWNERSHIP FOR MINORITY BUSINESS ENTERPRISE

Sole Proprietorship _____ Partnership* _____ Joint Venture* _____ Corporation* _____

LIST OWNER, ALL PARTNERS, OR ALL STOCKHOLDERS

Name _____	Ethnic ID** _____	% of ownership _____
Name _____	Ethnic ID _____	% of ownership _____
Name _____	Ethnic ID _____	% of ownership _____
Name _____	Ethnic ID _____	% of ownership _____
Name _____	Ethnic ID _____	% of ownership _____

LIST INSURANCE POLICIES AND BONDING ARRANGEMENTS

Name of policy _____	Party insured _____
Name of policy _____	Party insured _____
Name of policy _____	Party insured _____

LIST AUTHORIZED CHECK SIGNERS AND LINE OF CREDIT INFORMATION

Name of authorized check signers _____

Line of credit under what name _____

OUR MAJOR VENDORS/SUPPLIERS OF GOODS AND SERVICES

_____	Address _____	Tel. # _____
_____	Address _____	Tel. # _____
_____	Address _____	Tel. # _____
_____	Address _____	Tel. # _____

Contractors and Subcontractors only: List the firm's gross annual receipts for the last three fiscal years as follows:

19____ \$ _____; 19____ \$ _____; 19____ \$ _____

Suppliers or manufacturers only: List the number of employees for the last three fiscal years as follows:

19____ Number _____; 19____ Number _____; 19____ Number _____

ADDITIONAL SUBCONTRACTING BY SUBCONTRACTOR

_____ We will not subcontract any portion of work to another subcontractor.

_____ We will subcontract _____% of our work to _____
(name of subcontractor)
 for the amount of \$ _____ and whose owner's ethnic identification is: _____.

If additional space is required, continue on another sheet.

I declare, under penalty of perjury, that the above information is true and correct and that our firm is a bona fide minority business enterprise as defined under the Human Rights Commission's Affirmative Action Program.

 Owner or Authorized Representative
 (Name)

 (Title)

 (Phone No.)

Subscribed and sworn before me on

_____ 19 _____

 Notary Public

Checked please attach a copy of the partnership agreement or joint venture agreement or articles of incorporation.

Use the following symbols for Ethnic ID: W=White, H=Hispanic, B=Black, A=Asian and Pacific Islander, AI/AN=American Indian and Alaskan Native.

CITY AND COUNTY OF SAN FRANCISCO

PUBLIC UTILITIES COMMISSION

BOND ACCOMPANYING BID

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned as Principal____ and the undersigned as Surety are held and firmly bound unto the City and County of San Francisco, a municipal corporation, as obligee, in the penal sum of

_____ Dollars (\$_____) lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our successors, executors, administrators and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal____ is submitting a proposal for certain work to be performed for the said City and County of San Francisco, described as follows:

THE CONDITION OF THIS OBLIGATION IS SUCH that if the proposal submitted by the said Principal____ be accepted and the contract be awarded to said Principal____ and said Principal____ shall within a period of 10 days after such award enter into the contract so awarded and file the required bonds, then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument this _____ day of _____, 19____.

(Corporate Seal)

Principal

Surety

(Corporate Seal)

By _____ Attorney in Fact

EXPERIENCE AND FINANCIAL QUALIFICATIONS

The following statements as to experience and financial qualifications of the bidder are submitted with the proposal, a part thereof, and the truthfulness and accuracy of the information are guaranteed by the bidder.

Bidder's organization has been in business as a contractor under its present business name for _____ years,
from _____.

Bidder's organization has had experience in work comparable with that required under the proposed contract, as a general contractor, _____ years; as a subcontractor, _____ years.

Contractor's License Number, State of California_____

Type: _____ Expiration Date: _____

Work similar in character to that required in the proposed contract, which bidder's organization has completed:

[illegible]

5 Bidder refers to the following for information concerning work listed in 4, above:

	NAME	TITLE	ADDRESS
1			
2			
3			
4			
5			
6			
7			
8			
9			

6 Reference is hereby made to the following bank or banks as to the financial responsibility of the bidder:

Name of Bank	Address

7 Reference is hereby made to the following surety company or companies as to the financial responsibility and general reliability of the bidder:

Name of the Surety Company	
Address	
Name of the Surety Company	
Address	
Name of the Surety Company	
Address	

LIST OF EQUIPMENT

8. Following is a list of equipment definitely available for use on the proposed work as required. (Give quantity, description, size or capacity, condition, and present location of each item of equipment.)

[illegible]

The bidder may be required to furnish to the Public Utilities Commission additional information as to his technical experience, financial status, and adequacy of his plant equipment to perform the work of the proposed contract, before the award of the contract will be made.

SUBCONTRACTORS

The bidder submits the following information as to subcontractors he intends to employ if awarded the contract.
(See specifications, section 8.)

[illegible]

(Bidder to attach additional sheets if necessary)

MINORITY SUBCONTRACTORS AND SUPPLIERS

The Bidder submits the following information as to minority contractors and suppliers he has contacted for quotes on the sub-contract work and materials related to the contract. If none contacted state reason(s) why.

Name and Address of Minority Contractor or Supplier	Date Contacted	Remarks

For a list of Minority Subcontractors, the Bidder may contact Mr. George Newkirk, Public Utilities Commission Contract Compliance Officer, (415) 58-2388.

AFFIDAVIT

STATE OF _____ }
COUNTY OF _____ } "

_____, being first duly sworn, deposes and says

That he is _____

he party making the foregoing proposal or bid; that such bid is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any other bidder or person to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner sought by collusion to secure any advantage against the City and County of San Francisco, or any person interested in the proposed contract, for himself or for any other person; that said bidder is familiar with the provisions of Sections 8.105 and 8.106 of the San Francisco Charter and certifies that he knows of no facts which constitute a violation of said sections and further certifies that he has made a complete disclosure to the Commission of all facts bearing upon any possible interest, direct or indirect, which he believes any member of the Commission, or other officer or employee of the City and County of San Francisco presently has or will have in this contract or in the performance thereof or in any portion of the profits thereof; and that all statements contained in said proposal are true.

Signature

Subscribed and sworn to before me _____
Signature - Notary Public

this _____ day of _____, 19____

Notary Public of the State of _____

(SEAL)

and for the County of _____

My Commission expires _____

(If the bidder is a co-partnership, this affidavit must be signed and sworn to by every member of the firm.)

(If the bidder's affidavit on the foregoing form is made outside the State of California, the official position of the person taking such affidavit shall be certified to according to law.)

PUBLIC UTILITIES COMMISSION

AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 19____,
by and between _____,

whose place of business is at _____,
hereinafter called the Contractor, and the CITY AND COUNTY OF SAN FRANCISCO, STATE OF
CALIFORNIA by its PUBLIC UTILITIES COMMISSION, hereinafter called the Commission, acting under
and by virtue of the authority vested in said Commission by the Charter of said City and County and by
ordinances enacted pursuant to said Charter, WITNESSETH, that

WHEREAS, the Commission, by its Resolution No. _____, adopted on the
_____ day of _____, 19____ (a copy of which is hereto
attached and hereby made a part of this agreement), awarded to the Contractor the contract for

NOW, THEREFORE, the Contractor, for and in consideration of payment to be made as hereinafter
mentioned, promises and agrees with the Commission as such and not otherwise, to perform said work in a
good and workmanlike manner, under the direction (to the extent of ascertaining whether said work is
being performed in accordance with the plans and specifications) and to the satisfaction of the Commission,
and to furnish all labor, material and equipment necessary for use in the performance thereof, all in
accordance with the invitation for proposals, the proposal submitted by the Contractor, the specifications
attached hereto, and all drawings which as provided in said specifications are made a part thereof, all of
which documents are by reference made a part of this agreement as if all requirements and provisions
therein contained were specifically set forth herein.

Said work shall be commenced as soon as practicable after execution of this contract, prosecuted
diligently thereafter, and completed within the time limit fixed in the specifications.

And the City and County of San Francisco, by its Public Utilities Commission, promises and agrees that upon performance and fulfillment of the covenants aforesaid, it will pay to the Contractor for said work, in the manner provided by law and in said specifications, the price or prices fixed in the Contractor's proposal for said work and set forth in the resolution hereinabove mentioned.

Time is of the essence of this contract.

It is understood and agreed that in no instance is any party signing this agreement for or on behalf of the City and County of San Francisco or acting as a member of the Public Utilities Commission liable on this contract, or upon any warranty of authority, or otherwise, and it is further understood and agreed that the liability of said City and County is limited and confined to such liability as authorized or imposed by law.

IN WITNESS WHEREOF the parties to these presents have hereunto set their hands and seals and have executed this contract in quadruplicate the day and year first above written.

APPROVED AS TO FORM:

CONTRACTOR:

City Attorney

By _____

By _____

Utilities General
Counsel

Title _____
(Corporate seal when required)

ATTEST.

CITY AND COUNTY OF SAN FRANCISCO.
by its PUBLIC UTILITIES COMMISSION

Authorized by Public Utilities
Commission Resolution No.
Adopted:

By _____
Chief Engineer
and Deputy General Manager

Secretary
Public Utilities Commission

COPY OF RESOLUTION NO. _____

adopted _____, 19____

by the Public Utilities Commission of
the City and County of San Francisco.

CITY AND COUNTY OF SAN FRANCISCO

PUBLIC UTILITIES COMMISSION

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that WHEREAS, the Public Utilities Commission of the City and County of San Francisco, State of California, by Resolution No. _____, passed _____, 19_____, has awarded to _____ hereinafter designated as the "Principal," a contract for the

And WHEREAS, said Principal is required under the terms of said contract to furnish a bond for the faithful performance of said contract:

NOW, THEREFORE, we, the Principal and _____ as Surety, are held and firmly bound unto the City and County of San Francisco, hereinafter called the City, in the penal sum of _____ Dollars (\$_____) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, assigns, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above-bounden Principal, his heirs, executors, administrators, successors or assigns, or its successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said contract, including the provisions for liquidated damages in the said contract, and any changes, additions or alterations thereof made as therein provided, on the Principal's part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the City and County of San Francisco, its officers and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any wise affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument in quadruplicate under their seals this _____ day of _____, 19_____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Principal

By _____

Surety

By _____

Approved as to Form:

City Attorney

By _____

Utilities General Counsel

Date _____

Bond No. _____

The premium charged for this bond is \$ _____ for the term.

CITY AND COUNTY OF SAN FRANCISCO

PUBLIC UTILITIES COMMISSION

LABOR AND MATERIAL BOND

KNOW ALL MEN BY THESE PRESENTS, that WHEREAS, the Public Utilities Commission of the City and County of San Francisco, State of California, by Resolution No. _____, adopted _____, 19_____, has duly awarded to _____

hereinafter designated as the "Principal," a contract for the construction of the

And WHEREAS, said Principal is required to furnish a bond in connection with said Contract, providing that if said Principal, or any subcontractor of said Principal, shall fail to pay for any materials, provisions, provender or other supplies, or teams used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, the Surety on this Bond will pay for the same, in an amount not exceeding the sum specified in this Bond, and also, in case suit is brought upon the Bond, a reasonable attorney's fee to be fixed by the Court.

NOW, THEREFORE, we, _____

_____ as Principal, and

_____, as Surety,

are held and firmly bound unto the City and County of San Francisco, in the sum of _____

_____ Dollars (\$ _____)

lawful money of the United States, for the payment of which sums well and truly to be made, we, the said Principal and Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if said Principal, his heirs, executors, administrators, successors or assigns, or its successor and assigns, or any subcontractor of said Principal, shall fail to pay for any materials, provisions, provender or other supplies, or teams, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, then the Surety on this bond will pay for the same, in an amount not exceeding the sum specified in this Bond, and in case suit is brought upon this Bond will also pay a reasonable attorney's fee to be fixed by the Court.

This Bond shall inure to the benefit of any and all persons, companies, corporations, political subdivisions and State Agencies, entitled to file claims under the provisions of Sections 4200 to 4208, inclusive, of the Government Code of California and Section 1192.1 of the Code of Civil Procedure of the State of California, formerly in part Section 1184-e of said Code, so as to give a right of action to them, or their assignees, in any suit brought upon this Bond.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any wise affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals _____ day of _____, 19_____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Principal

By _____

Surety

By _____

Approved as to Form:

City Attorney

By _____

Utilities General Counsel

Date _____

Bond No. _____

The premium charged for this bond is \$ _____ for the term.

SPECIFICATIONS

GENERAL PROVISIONS

1. **DEFINITIONS.** Wherever any of the words or phrases defined below, or a pronoun used in place thereof, is used in any part of this contract, it shall have the meaning here set forth:

City: The City and County of San Francisco, State of California.

Public Utilities Commission or Commission: The Public Utilities Commission of the City and County of San Francisco, acting directly or through properly authorized agents limited by the particular duties entrusted to them.

Hetch Hetchy Water and Power, San Francisco Water Department, and Municipal Railway: Departments of the Public Utilities Commission, each having control of such public utilities of the City and County of San Francisco as are indicated respectively by the departmental title.

Engineer: The Chief Engineer and Deputy General Manager of the Public Utilities Commission exercising supervision over the work performed under this contract, or any agent properly authorized to act for him.

Contractor: The party or parties contracting to perform the work to be done under this contract, or the legal representative of such party or Parties.

Contractor's Employees: Any person engaged in the execution of work under this contract as direct employees of the Contractor, as subcontractors, or as employees of subcontractors.

Contract: The written agreement covering the performance of the work and the furnishing of labor and materials therefor. The contract shall include the invitation for proposals, the proposal, the contract bonds, the specifications, all supplemental agreements entered into, and all general or special provisions pertaining to the work or materials therefor.

Specifications: The directions, provisions, and requirements contained herein, supplemented by any plans or drawings attached or referred to and such additional provisions as may be necessary, pertaining to the performance of the work herein required and to the furnishing of material. The Special Provisions of the specifications set forth information, conditions and requirements pertaining, in addition to the General Provisions, to the particular work to be performed under the proposed contract. The Technical Specifications and the plans are parts of the Special Provisions.

Plans or Drawings: All official drawings or reproductions of drawings made or to be made, pertaining to the work provided for in the contract or any construction connected therewith.

The Work: The work to be done under this contract, unless some other meaning is indicated by the context.

Material or Materials: These words shall be construed to embrace machinery, manufactured articles, materials of construction (fabricated or otherwise), and any other classes of material to be furnished in connection with the contract, except where a more limited meaning is indicated by the context.

Working Day: Each day of the year except Saturday, Sundays and Legal Holidays.

Interpretation of Phrases: Wherever the words "as directed," "as required," "as permitted," or words of like effect are used, it shall be understood that the direction, requirement, or permission of the Commission or the Engineer is intended. The words "sufficient," "necessary," "proper" and the like shall mean sufficient, necessary or proper in the judgment of the Commission or the Engineer. The words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to, the Commission or the Engineer.

INFORMATION AND INSTRUCTIONS FOR BIDDERS

2. CONDITIONS OF BIDDING. The proposal for performing the required work and furnishing the required materials must be made on the blank form of proposal hereto attached.

The proposal must be enclosed in an opaque envelope addressed to the Public Utilities Commission, sealed and endorsed with the superscription indicated on the cover page of the specifications. Proposals will be received at the designated location, at any time prior to the date and hour named in the advertisement published in the official newspaper of the City and County of San Francisco.

Blank spaces in the proposal must be properly filled in, and the phraseology of the proposal must not be changed. Additions must not be made to the items mentioned therein. Statements or communications accompanying bids and serving to qualify such bids will not be considered in making awards and will disqualify bidders.

In case of conflict between words and numerals, the words, unless obviously incorrect, will govern.

In unit price bids, if the unit price and the total price named by the bidder for any item do not agree, or if the amount shown as the total of two or more item prices is not actually the sum of the item prices, it will be assumed that the unit price in the first case, or the item prices in the second case, correctly represent the bidder's intention, and corrected totals will be used in comparison of bids.

Unit prices must not be improperly balanced.

The Commission reserves the right to waive technical defects in bidding.

3. COLLUSION. No person, firm, or corporation shall make, file, or be interested in more than one proposal for the same work, except where alternative bids are provided for in the proposal form. (However a person, firm or corporation that has submitted a sub-proposal to a bidder, or has quoted prices to a bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders).

The bidder must make the affidavit for which a form is provided with the proposal blank.

4. EXPERIENCE AND FINANCIAL QUALIFICATIONS. The bidder will be required to show to the satisfaction of the Public Utilities Commission that he has the necessary experience in the class of work to be performed, and the ability, equipment and financial resources to perform the work satisfactorily within the time specified. This information must be submitted by the bidder on forms provided with the proposal for that purpose. In determining upon the award of contract, such information will be considered, and the bidder is cautioned to make complete and comprehensive answers to all questions.

5. CONTRACTOR'S LICENSE. The Contractor and all subcontractors shall be licensed with the Department of Consumer Affairs of the State of California in the class appropriate for the work contemplated. Failure of Contractor or his subcontractors to possess such current license will be deemed sufficient cause for the rejection of the bid.

6. INVESTIGATION PRIOR TO BIDDING. The bidder must inform himself by careful personal examination of the location of the proposed work, by careful consideration of the specifications and drawings, and by such other means as he may think proper, as to the actual conditions and requirements of the work; as to any unusual difficulties that may be encountered in the prosecution of the work; as to the character and amounts of all classes of labor and material necessary to carry out the work; and as to all other circumstances and conditions affecting the cost of the work; and he must include in his bid all expense he may find it necessary to incur to complete the work in accordance with the contract.

The depositing of a proposal with the Commission shall constitute acknowledgement on the part of the bidder that he has complied with the terms of the above paragraph.

7. PERFORMANCE OF WORK BY CONTRACTOR. The Contractor shall perform on the site, and with his own organization, work equivalent to at least twenty percent (20%) of the total amount of work to be performed under the contract.

If, during the progress of the work hereunder, the Contractor requests a reduction in such percentage and the Engineer determines that it would be to the City's advantage, the percentage of the work required to be performed by the Contractor may be reduced; provided written approval of such reduction is obtained by the Contractor from the Engineer.

8. SUBCONTRACTORS. Each Bidder, on the blank form provided for this purpose with his Proposal, shall set forth, for each Subcontractor who will perform any portion of the work in excess of one-half (1/2) of one percent (1%) of the General Contractor's total bid, the following information:

1. Name of Subcontractor
2. Address of Subcontractor
3. Brief description of work to be performed under subcontract.
4. Amount to be paid for Subcontractor's work, labor or service.
5. Subcontractor's License number, State of California

The Bidder may be required to furnish to the Commission information as to the technical experience, financial status, and adequacy of the plant or equipment of each subcontractor mentioned in his proposal.

9. REJECTION OF BIDS. The Commission may reject any and all Bids.

10. SURETY BOND OR CERTIFIED CHECK TO ACCOMPANY PROPOSAL. The proposal shall be accompanied by a corporate surety bond in the form herein set forth, or by a certified check on a solvent bank of the State of California, payable on sight to the City and County of San Francisco, the amount of which shall not be less than 10 percent of the total amount bid for the proposed work or improvement. NO PROPOSAL CAN BE CONSIDERED UNLESS ACCOMPANIED BY SUCH BOND OR CHECK. When Bids have been received and checked by the Commission, all such bonds or checks will be returned to the respective Bidders except those accompanying the three lowest proposals, which latter bonds or checks will be returned after the contract has been awarded and the successful Bidder has executed it and filed satisfactory bonds and certificates of insurance as herein specified, or after all proposals have been rejected if no award is made.

11. ESTIMATE OF THE AMOUNT OF WORK TO BE DONE. The amount of each class of work included in a unit price bid will have been preliminarily estimated, as shown on the schedule of bid prices in the Proposal, and this estimate will be used as a basis for comparing bids. The Commission does not expressly or by implication agree that the actual amount of work will correspond with the amount so shown or estimated, but reserves the right to increase or decrease the amount of any class or portion of the work, to leave out an entire Bid Item or Items, or so add work of a class not included in the Proposal, when in its judgment such change is in the best interest of the City. No such change in the work shall be considered as a waiver of any other condition of the contract.

The adjustment in compensation for any decrease in the amount of work shall be in accordance with the applicable provisions of Section 12.

12. DECREASE OF MORE THAN 25 PERCENT IN SCHEDULE OF BID PRICE QUANTITY. Should the pay quantity of actual work required under any Bid Item be, or be reduced to, less than 75 percent of the quantity shown in the Schedule of Bid Prices and the value of the depletion, based on contract bid prices, exceeds Two Thousand Dollars (\$2,000.00), the Contractor may request an increase in the unit price bid for that particular Bid Item.

Such increase in price, adjusted to compensate for fixed costs, will be negotiated in accordance with the procedure set forth in Section 67.

Payment for the total pay quantity for such Bid Item will in no case exceed the payment which would have been made for 75 percent of the quantity set forth in the Schedule of Bid Prices at the original unit price bid therefor.

No adjustment of the unit price bid will be made in the instance of an increase in the quantity of any Bid Item.

AWARD, EXECUTION AND CERTIFICATION OF CONTRACT

13. AWARD OF CONTRACT. The award of the contract, if it be awarded, will be made by the Commission as soon as practicable after the opening of the proposals but not less than ten days after the last date of publication in the advertisement for proposals, and not more than 30 days after receipt of Bids unless the time is extended by resolution of the Board of Supervisors; provided that whenever, in order to develop, implement or improve a qualifying affirmative action non-discrimination program as required by Section 12B of the Administrative Code of the City and County of San Francisco a period in excess of thirty days after receipt of bid shall be required, then the Commission shall have an additional thirty days within which to let such contract to the lowest reliable and responsible bidder; and further provided that the Commission may extend the time of award with the consent of the successful bidder.

14. EXECUTION OF CONTRACT. The successful bidder will be allowed ten calendar days after the date upon which the contract is awarded to him by the Commission within which to deliver to the Commission the contract with his signature affixed thereto, together with the bonds and certificates of insurance required herein.

15. BONDS. At or before the time of execution of the contract, the Contractor must file with the Commission the following bonds:

1. A corporate surety bond, in a sum not less than 50 percent of the amount of the contract, to guarantee the faithful performance of the contract.

2. A corporate surety bond, in a sum not less than 50 percent of the amount of the contract, to guarantee the payment of wages for services engaged and of bills contracted for materials, supplies, and equipment used in the performance of the contract.

The forms for these bonds are furnished herewith.

Corporate sureties on these bonds and on bonds accompanying bids must be legally authorized to engage in the business of furnishing surety bonds in the State of California. All sureties must be satisfactory to the Commission and to the Controller of the City and County of San Francisco.

The amount of the contract, as used to determine the amounts of the bonds, shall be the total amount fixed in the Contractor's proposal for the performance of the required work (or the corrected total if errors are found).

During the period covered by the contract if any of the sureties upon the bonds shall become insolvent or unable, in the opinion of the Commission to pay promptly the amount of such bonds to the extent to which surety might be liable, the Contractor, within 30 days after notice given by the Commission to the Contractor, shall by supplemental bonds or otherwise, substitute another and sufficient surety approved by the Commission in place of the surety becoming insolvent or unable to pay. If the Contractor fails within such 30 day period to substitute another and sufficient surety, the Contractor shall, if the Commission so elects, be deemed to be in default in the performance of his obligations hereunder and upon the said bonds, and the Commission in addition to any and all other remedies, may terminate the contract or bring any proper suit or proceeding against the Contractor and the sureties or any of them, or may deduct from any monies then due or which thereafter may become due the Contractor under the contract the amount for which the surety, insolvent or unable to pay as aforesaid, shall have justified on the bonds, and the monies so deducted shall be held by the City as collateral security for the performance of the conditions of the bonds.

16. INSURANCE. Before the contract is entered into, the bidder to whom it is awarded shall furnish to the Commission a certificate of insurance, satisfactory to the Commission, with respect to insurers and forms, of the following:

- (1) Comprehensive general liability insurance with limits not less than \$1,000,000 each occurrence for Bodily Injury and Property Damage, including coverages for premises and operations, independent contractors, contractual liability, broad form property damage, personal injury, XCU, products, and completed operations.

- (2) Comprehensive automobile liability insurance with limits not less than \$1,000,000 each occurrence for Bodily Injury and Property Damage including coverages for owned, hired, and non-owned vehicles and employers' non-ownership liability.
- (3) Workers' compensation, including Employers' Liability insurance with limits not less than \$1,000,000 each accident, or satisfactory evidence of self-insurance.

General and automobile liability policies shall be endorsed to name as Additional Insureds the City and County of San Francisco, the Public Utilities Commission, and the officers, agents, employees, and members of each of them. Said insurance policies by endorsement thereof shall contain a standard cross liability clause.

Policies shall be endorsed to provide not less than ten (10) days prior written notice of cancellation or reduction in coverage to the Additional Insureds.

At the time of making application for an extension of time, the Contractor shall submit evidence that the insurance policies will be in effect during the requested additional period of time.

If the Contractor fails to maintain any required insurance, the City may take out such insurance and deduct and retain the amount of the premiums from any sums due the Contractor under the contract.

Nothing herein contained shall be construed as limiting in any way the extent to which the Contractor or any subcontractor may be held responsible for payment of damages resulting from his operations.

The required minimum amounts of insurance may be increased should conditions of the work, in the opinion of the Commission, warrant such increase, and the Contractor shall increase the amounts of insurance required herein when so directed by the Commission to such higher amounts as the Commission may direct.

If an injury occurs to any employee of the Contractor for which the employee, or his dependents in the event of his death, is entitled to compensation from the City under the provisions of said Workers' Compensation Insurance and Safety Act as amended, or for which compensation is claimed from the City, the City may retain out of the sums due the Contractor under this contract, an amount sufficient to cover such compensation, as fixed by said Act as amended, until such compensation is paid, or until it is determined that no compensation is due, and if the City is compelled to pay such compensation, it will deduct and retain from such sums the amount so paid.

17. FAILURE TO EXECUTE CONTRACT. Failure of the bidder to whom the contract is awarded to execute the contract and to file the required bonds and insurance within the time limit prescribed under Section 14 herein shall be just cause for the forfeiture of the proposal guarantee.

If the bidder to whom the contract is awarded shall fail or neglect to enter into the contract and file the required bonds and insurance, the Commission shall deposit the corporate surety bond or certified check referred to in Section 10, "Surety Bond or Certified Check to Accompany Proposal" with the Treasurer of the City and County for collection and the proceeds thereof shall be retained by the City as liquidated damages for the failure of such bidder to enter into such contract, unless upon recommendation of the Commission, the Board of Supervisors, by resolution, approves the return of such bond or check.

18. CERTIFICATION OF CONTRACT. After the contract has been executed and all required bonds and insurance have been filed with the Commission, the Controller will certify that funds necessary to make payments as required under the contract are available in accordance with the provisions of Section 6.302 of the Charter.

GENERAL REQUIREMENTS OF CONTRACT

19. GENERAL REQUIREMENTS. The Contractor shall furnish all labor, materials, supplies and equipment, unless otherwise specified herein, and shall do all work necessary for the proper performance of this contract, all in accordance with these specifications and to the satisfaction of the Public Utilities Commission.

All installations required under this contract shall be complete and ready for operation or use.

The Contractor's bid price must include the entire cost of the work contemplated in the contract, and it is understood and agreed that the price bid includes the cost of all work incidental to the completion of the work.

Any part of the work not shown on the plans or described in the specifications, but which is reasonably implied by either, or is necessary or usual in the performance of such work, shall be performed by the Contractor as incidental work without extra cost to the City, as if fully described in the specifications and shown on the plans.

The Contractor shall take and assume all responsibility for the work and shall indemnify the City for any claim or liability arising from the prosecution of the work.

PROVISIONS AS TO SPECIFICATIONS AND DRAWINGS

20. SPECIFICATIONS, DRAWINGS, ETC., ARE PARTS OF CONTRACT. These specifications, the drawings furnished with the specifications, drawings that may be furnished as the work progresses, the information for bidders hereto attached, the proposal submitted by the Contractor for doing the work and furnishing the materials required under this contract, and the advertisement for proposals for doing said work and furnishing said materials, are all made parts of this contract.

21. INTERPRETATION OF SPECIFICATIONS. Should any discrepancy appear or any misunderstanding arise as to the import of anything contained in the specifications or plans, the matter shall be referred to the Engineer, who shall decide the true intent and meaning as construed by him, and his decision shall be binding on the Contractor. Suitable instructions will be given or corrections made when any such error or omission is discovered. In case of discrepancy or conflict between the general provisions and the special provisions, the special provisions shall govern.

22. CHECKING OF DRAWINGS. The Contractor shall check all drawings furnished him immediately upon their receipt and shall promptly notify the Engineer of any discrepancies. Figures shown on drawings shall in general be followed in preference to scale measurements. Large scale drawings shall in general govern over small scale drawings. The Contractor shall compare all drawings and verify the figures before laying out the work, and shall be responsible for any errors which might have been avoided by such comparison.

23. DEVIATIONS FROM SPECIFICATIONS AND DRAWINGS. Deviations from drawings and from the dimensions therein given, whether or not error is believed to exist, shall be made only as directed or approved by the Engineer.

24. CONFLICTS, OMISSIONS, ETC., IN SPECIFICATIONS AND DRAWINGS. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, if the true intent is not obvious, it shall be determined by the Engineer, as provided in Section 21 of these specifications. Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of work; they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

25. STANDARDS TO APPLY WHERE DETAILED SPECIFICATIONS ARE NOT FURNISHED. Wherever in these specifications, or in any orders given by the Engineer pursuant to or supplementing these specifications, it is provided that the Contractor shall furnish materials or manufactured articles or shall

do work for which no detailed specifications are set forth, the following general specifications shall apply. The materials or manufactured articles shall be new and of the best grade, in quality and workmanship, obtainable in the market from firms of established good reputation, or, if not ordinarily carried in stock, shall conform to the usual standards for first-class materials or articles of the kind required, with due consideration of the use to which they are to be put. Work for which no detailed specifications are set forth herein shall conform to the usual standards for first-class work of the kind required.

26. DRAWINGS TO BE FURNISHED BY CONTRACTOR. Shop drawings shall be furnished to the Engineer for approval, and any work for which shop drawings are required, which is executed before such approval, shall be at the Contractor's risk.

The approval of said drawings by the Engineer will refer to general design only, and will not relieve the Contractor from responsibility for errors contained therein, or from the necessity of furnishing such work and materials as may be required by the plans and specifications, or otherwise necessary for the proper execution of the work intended, whether or not indicated on the shop drawings when approved.

All shop drawings shall be furnished in quadruplicate, and one copy will be returned to the Contractor marked "approved," or with corrections by the Engineer noted. Additional copies may be required, in which case they shall be furnished by the Contractor without direct payment, on order of the Engineer.

CONTROL OF MATERIALS

27. PATENTS. All fees or claims for any patented invention, article or arrangement that may be used upon or in any manner connected with the performance of the herein proposed work or any part thereof, shall be included in the price bid for doing the work. The Contractor shall save, keep, bear harmless, and fully indemnify the City and any of its officers or agents from all damages, claims for damages, costs, or expenses in law or equity that may at any time arise or be set up for any infringement of the patent rights, copyrights or trademark of any person or persons in consequence of the use by the City, or any of its officers or agents, of articles to be supplied under the contract and of which the Contractor is not the patentee or assignee or has not the lawful right to sell the same.

28. SUBSTITUTION FOR PATENTED AND SPECIFIED ARTICLES. Whenever in the specifications, any material or process is designated by patent or proprietary name or by name of manufacturer, such designation shall be deemed to be used for the purpose of facilitating description of the material and process desired, and shall be deemed to be followed by the words "or equivalent," and the Contractor may offer any substitute material or process which he considers equal in every respect to that so designated, and

if the material, or process, offered by the Contractor is, in the opinion of the Engineer, equal in every respect to that so designated, its use will be approved.

As early as practicable, the Contractor shall submit to the Engineer a written list of all materials, equipment and processes which he proposes to furnish or use instead of and as equal to any that are designated by proprietary names or proprietary descriptions. Detailed information in regard to each proposed substitute shall be furnished in time to permit proper investigation without delay to the work. Such information shall include descriptive matter, drawings, catalogue references, cuts, samples, results of tests, and other appropriate matter such as will enable the Engineer to determine to his satisfaction whether the substitute is acceptable. No approval of such a substitution shall be valid unless given in writing and signed by the Engineer.

29. STORAGE MATERIALS. Materials shall be so stored as to insure the preservation of their quality and fitness for the work. When considered necessary by the Engineer, they shall be placed on wooden platforms or other hard, clean surfaces and not on the ground. They shall be placed under cover when so directed. Stored materials shall be so located as to facilitate prompt inspection.

CONTROL OF THE WORK

30. AUTHORITY OF THE ENGINEER. The Engineer shall decide all questions which may arise as to the quality or acceptability of materials furnished and work performed and as to the manner of performance and rate of progress of the work; all questions which may arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor; and all questions as to compensation. His decision shall be final and he shall have authority to enforce and make effective such decisions and orders which the Contractor fails to carry out promptly.

31. ACCESS TO THE WORK. During the performance of the herein proposed work, the Commission and its agents and employees may at any time enter upon the work, the shops where any part of such work may be in preparation, or the factories where any materials for use in the work are being or are to be manufactured, and the Contractor shall provide proper and safe facilities therefor, and shall make arrangements with manufacturers to facilitate inspection of their processes and products to such extent as the City's interests may require. Other contractors performing work for the City under the Commission may also, for all purposes required by their respective contracts, enter upon the work.

32. INSPECTION. All work and materials, and the manufacture and preparation of such materials, from the beginning of the construction until the final completion and acceptance of the herein proposed work, shall be subject to inspection and rejection by the Engineer.

Any work or material found to be in any way unsatisfactory or defective before final acceptance of the herein proposed work shall be corrected or replaced immediately by the Contractor at his own expense on the order of the Engineer, notwithstanding that it may have been previously overlooked or passed by any inspector. Inspection shall not relieve the Contractor of his obligation to furnish material and workmanship in accordance with the contract.

Whenever required by the Engineer, the Contractor shall furnish all tools, labor and materials necessary to make an examination of any work under this contract that may be completed or in progress, even to the extent of uncovering or taking down portions of finished work. Should such work be found unsatisfactory, the cost of making such examination and or reconstruction shall be defrayed by the Contractor. Should the work be found to be satisfactory, the examination will be paid for by the City in the manner herein prescribed for paying for alterations, modifications and extra work.

33. SAMPLES AND TESTS OF MATERIALS AND WORK. Samples or test specimens of all materials to be used or offered for use in connection with this work shall be prepared at the expense of the Contractor and furnished to the Engineer in such quantities and sizes as may be required for proper examination and tests, with all carriage charges prepaid and with information as to their sources.

All samples shall be submitted in ample time to enable the Engineer to make any tests, analyses or examinations necessary before the time at which it is desired to incorporate the material into the work.

34. UNSATISFACTORY MATERIALS AND WORKMANSHIP. Materials, work or workmanship which, in the opinion of the Engineer, do not conform to the specifications and drawings, or are not equal to the samples submitted to and approved by the Engineer, or are in anyway unsatisfactory or unsuited to the purpose for which they are intended, shall be rejected. The Contractor shall remove all rejected material from the work and its vicinity without delay. If he fails to do so within 48 hours after having been so directed by the Engineer, the rejected material may be removed by the Commission and the cost of removal charged against the Contractor.

Neither payment nor any provision in these specifications shall relieve the Contractor from responsibility for faulty materials or workmanship, and unless otherwise specified, he shall remedy any defects due thereto and pay for any damages to other work resulting therefrom; which shall appear within a period of two years from the date of acceptance of the work. The City shall give notice of observed defects with reasonable

promptness. All questions arising under this section shall be decided by the Engineer.

Should the Contractor fail to make necessary corrections promptly or should the exigency of the situation require immediate repairs before the Contractor can be notified, the City shall have the right to make the necessary repairs or replacements at the expense of the Contractor.

If variations from this requirement should be established elsewhere in these specifications for specific work and materials, such variations shall not affect the application of this section to other work and materials.

35. PROOF OF COMPLIANCE WITH CONTRACT PROVISIONS. In order that the Commission or the Engineer may determine whether the Contractor has complied or is complying with the requirements of the contract not readily enforceable through inspection and tests of the work and materials, the Contractor shall at any time when requested submit to the Commission or the Engineer properly authenticated documents or other satisfactory proofs of his compliance with such requirements.

36. LINES AND GRADES, MEASUREMENTS. All work under this contract shall be done to the lines and grades prescribed by the Engineer. The Contractor shall keep the Engineer informed a reasonable time in advance of the times and places at which he wishes to do work, in order that lines and grades may be furnished and necessary measurements for record and payment may be made with the minimum of inconvenience to the Engineer and of delay to the Contractor. The marks given shall be carefully preserved. If through negligence of the Contractor grade stakes are destroyed the cost of replacing said grade stakes shall be charged against the Contractor. At the request of the Engineer, the Contractor shall, without charge, provide men from his force, and tools and materials, to assist the Engineer temporarily in making measurements and surveys and in establishing temporary or permanent reference marks.

It may be necessary at times that portions of the Contractor's work be discontinued, in order that the Engineer may make measurements or surveys without interruptions or other interference that might impair the accuracy of the results. At any time, on request of the Engineer, the Contractor shall discontinue his work to such extent as may be necessary for the purposes of the Engineer.

No direct payment will be made for the cost to the Contractor of any work of delay occasioned by establishing or checking lines and grades or making other measurements, or by inspection, and no extension of time will be allowed for such delays.

The alignment and grade or dimensions of any portion of the work may be changed by the Engineer from those shown on the drawings, at any time before or after the commencement of work under this contract.

37. COST DATA. The Contractor shall give the Engineer, at his request at any time, full and correct information as to the number of men employed in connection with each subdivision of the work, the classification and rate of pay of each man, the cost to the Contractor of each class of materials, tools and appliances used by him in the work, and the amount of each class of materials used in each subdivision of the work.

CONTRACTOR'S ORGANIZATION AND EQUIPMENT

38. CONTRACTOR'S LEGAL ADDRESS. The address given in the bid or proposal is hereby designated as the legal address of the Contractor, but such address may be changed at any time by notice in writing, delivered to the Public Utilities Commission. The delivering to such legal address or the depositing in any post office or post office box regularly maintained by the United States Postal Service, in a postpaid wrapper, directed to the Contractor at such address, of any drawing, notice, letter or other communication, shall be deemed legal and sufficient service thereof upon the Contractor.

39. CONTRACTOR'S OFFICE AT THE WORK. The Contractor shall maintain an office at the site of the work, which office shall be the headquarters of a representative authorized to receive instructions, drawings or other communications from the Engineer. Such instructions, drawings, or other communications given to such representative or delivered at his office in his absence shall be deemed to have been given to the Contractor.

40. CONTRACTOR'S SUPERINTENDENTS OR FOREMEN. The Contractor shall at all times during his absence be represented on the work by one or more superintendents or foremen authorized and competent to receive and carry out any instructions that may be given to him or them by the Engineer and the Contractor shall be liable for the faithful observance of any instructions delivered to him or to his authorized representative or representatives on the work.

41. CONTRACTOR'S EMPLOYEES. The Contractor shall employ only competent and skillful men to do the work, and whenever the Engineer shall notify the Contractor that any man on the work is, in his opinion, incompetent, unfaithful or disorderly, or refuses to carry out the provisions of the contract, or uses threatening or abusive language to any person on the work representing the City, or is otherwise unsatisfactory, such man shall be immediately discharged from the work and shall not be employed again on it except with the consent of the Engineer.

42. CONTRACTOR TO SUPPLY SUFFICIENT MEN AND MATERIAL. The Contractor shall at all times keep on the premises a sufficient amount of materials and employ a sufficient number of workmen to prosecute the work at the rate necessary to complete the work herein required within the time specified in the contract.

Should the Contractor at any time during the progress of the work refuse, neglect, or be unable to supply a sufficiency of materials or workmen to prosecute the work at such necessary rate, then upon receipt of notice to that effect from the Engineer, the Commission may notify the Contractor to furnish such workmen or materials as the Engineer may consider necessary, and if the Contractor does not comply with such notice from the Commission within 3 days of the date of service thereof, the Commission shall have the right to provide the materials and workmen to finish said work. The sums necessary to meet the expenses thereby incurred shall be deducted from any moneys due or which may thereafter become due under the contract and paid to the persons supplying such materials and doing such work. The amount of any such payments shall be deducted from the fund or appropriation set aside for the purposes of this contract and charged to the Contractor as if paid to him.

The Commission shall have the option to terminate the contract in the manner hereinafter set forth, should the Contractor at any time during the progress of the work refuse, neglect, or be unable, in the judgment of the Commission, to supply sufficient material or workmen to prosecute the work at the rate necessary to complete it within the time specified in the contract.

43. COOPERATION. The Contractor shall cooperate with all other contractors and workmen who may be employed by the Commission on any work in the vicinity of the work to be done under this contract, and he shall so conduct his operations as not to interfere with the work of such contractors or workmen. He shall promptly make good, at his own expense, any injury or damage that may be sustained by the work of other contractors or employees of the Commission at his hands.

Any difference or conflict that may arise between the Contractor and other contractors or between the Contractor and the workmen of the Commission in regard to their work shall be adjusted and determined by the Engineer. The Contractor shall suspend any part of the work herein specified or shall carry on the same in such manner as may be prescribed by the Engineer, when such suspension or prosecution is necessary to facilitate the work of other contractors or workmen, and no damages or claim by the Contractor will be allowed therefor other than an extension of the time specified in this contract for the completion of the work, for such a period of time as the Engineer shall consider the Contractor to have been delayed in the final completion of the work by reason of the work of other contractors or workmen.

44. CONSTRUCTION PLANT, EQUIPMENT AND METHODS. The construction plant and equipment provided by the Contractor, and his methods and organization for handling the work, shall be such as will secure a satisfactory quality of work and rate of progress which, in the opinion of the Engineer, will insure the completion of the work within the time herein specified.

The Contractor shall give the Engineer full information in advance as to his plans for carrying on any part of the work. If at any time before the commencement or during the progress of the work, any part of the Contractor's plant or equipment, or any of his methods of executing the work, appears to the Engineer to be unsafe or inadequate to insure the required quality or rate of progress of the work, he may order the Contractor to increase or improve his facilities or methods, and the Contractor shall promptly comply with such orders but neither compliance with such orders nor failure of the Engineer to issue such orders shall relieve the Contractor from his obligation to secure the degree of safety, the quality of work and the rate of progress required by the contract. The Contractor alone shall be responsible for the safety and adequacy of his plant, equipment and methods.

45. TEMPORARY STRUCTURES. The Contractor shall erect at his own expense, and remove upon the completion of the work or as ordered by the Engineer, such temporary storage sheds, office and other temporary structures as are necessary for the work. Such structures shall be subject to the approval of the Engineer.

PROSECUTION AND PROGRESS OF THE WORK

46. COMMENCEMENT OF WORK. When the contract has been certified by the Controller in accordance with Section 18, the Commission will designate the official date for commencement of the work and will notify the Contractor thereof. The Contractor shall begin work within 10 calendar days after such official commencement date, and shall prosecute the same diligently thereafter at a rate sufficient to enable him to complete the work within the time allowance specified in the Special Provisions.

47. NOTICE OF COMMENCEMENT OF WORK. The Contractor shall notify the Engineer in writing, not less than three (3) working days in advance, of the actual date he will begin the work to be done under the contract. Said notice shall contain information as to the time and place at which the Contractor wishes to commence the work, and the nature of the work to be done. Similar notice shall be given by the Contractor before commencement of any separate portion of the work.

48. PROGRESS SCHEDULE. Prior to commencing work, the Contractor shall submit to the Engineer for approval a progress schedule showing the order in which he proposes to carry out the work; the dates on which he will start the various important features of the work, including procurement of materials, plant and equipment; and the contemplated dates for completion of said features.

When ordered by the Engineer, the progress schedule shall utilize the "critical path" method, shall be in activity-on-arrow network analysis form, drawn to scale as to time, and shall be in general accordance with CPM

and Construction Manual for General Contractors, published by the A.G.C.

The progress schedule submitted shall be consistent in all respects with the time and order of work requirements of the contract.

If the actual progress of the work varies significantly from the submitted schedule, or if the Contractor proposes to change the schedule for any reason whatever, he shall immediately submit a revised progress schedule to the Engineer for approval.

No progress payments will be made for any work until a satisfactory progress schedule has been submitted and approved.

49. NIGHT, SATURDAY AND/OR SUNDAY WORK. The Contractor may be permitted or required to prosecute the work at night or on Saturdays and/or Sundays, if at any time the Engineer deems it necessary for the proper progress of the work. No night, Saturday or Sunday work shall be done unless permitted or required by the Engineer.

The Contractor shall, for the duration of this contract, have adequate men and equipment available on short notice to protect adjoining property, maintain the work or to make emergency repairs on Saturdays, Sundays and Holidays or during other than the normal working day. He shall furnish the Engineer with names and telephone numbers of at least three persons to call should any such emergency arise, and these persons shall be authorized to perform such work as the Engineer deems necessary.

50. ILLUMINATION OF WORK. When any work is performed at night or where daylight is shut off or obscured, the Contractor shall provide artificial light sufficient to prosecute the work properly and to permit thorough inspection.

51. WATER SUPPLY. The Contractor shall provide at convenient points ample water supply of satisfactory quality for all operations required under this contract.

52. SANITARY RULES. All portions of the work shall be maintained at all times in neat, clean and sanitary condition.

Toilets shall be furnished by the Contractor where needed, for the use of employees on the work, and their use shall be strictly enforced. They shall be properly secluded from public observation, and shall be located, constructed and maintained subject to the approval of the Engineer.

Contractor shall strictly obey and enforce all regulations of legally constituted public authority and all regulations prescribed by the Engineer in regard to sanitation, and shall summarily dismiss, and not again engage, except with the consent of the Engineer, any employees wilfully violating sanitary regulations. Any employee of the Contractor who is found to have a communicable disease shall be removed as soon as possible from the work.

53. PUBLIC SAFETY. The Contractor shall adequately safeguard the public and the work by taking all necessary or required precautions to prevent loss of life, personal injury and damage to property, and he shall conduct his operations with proper regard for the convenience of the public.

The Contractor shall not unnecessarily, in the judgment of the Engineer, obstruct or otherwise interfere with travel over any public street, way or sidewalk, nor shall he store, stockpile or place thereon any equipment, materials or supplies.

The Contractor shall conduct his operations so as to avoid as far as possible interruptions of sewer, water, gas, electric or other utility service to the adjacent residents or property owners. In the event it becomes necessary to temporarily interrupt such services for the purposes of the contract, the Contractor shall make all necessary arrangements prior to such interruption as will insure least inconvenience to the residents and prompt restoration of service, all in accordance with such conditions as may be prescribed by the proper authorities or the Engineer.

It shall be the sole responsibility of the Contractor to determine the exact location of any sewer, water, gas, electric, or other utility. If any such utility becomes injured due to any operation of the Contractor, they shall be immediately repaired at his expense.

Should the Contractor, in the opinion of the Engineer, fail to comply with any and/or all of such requirements as herein stipulated, the Engineer may cause the necessary work to be done, and cost thereof shall be chargeable to, and shall be paid by, the Contractor.

54. PROTECTION OF WORK, PERSONS AND PROPERTY AGAINST DAMAGE. The Contractor shall protect his work and materials from damage due to the nature of the work, the action of the elements, the carelessness of other contractors, or any other cause whatever, until the completion and acceptance of the work. Should any damage occur, he shall repair it at his own expense to the satisfaction of the Commission. Neither the Commission nor any of its agents assume any responsibility for collecting indemnity from any person or persons causing damage to the work of this Contractor.

The Contractor shall bear all responsibility for damage to adjoining work, property, or structures, and for injury to his employees and to any other persons whatever, or to livestock, arising from or in consequence of the performance of this contract, and shall furnish guards, fences, warning signs, walks and lights and take all other necessary precautions to prevent such damage or injury. All safety orders, rules and recommendations of the Division of Industrial Safety of California applicable to the work to be done under this contract shall be obeyed and enforced by the Contractor.

So much of the moneys due under this contract as may be considered necessary by the Commission may at its option be retained by the City until all suits or claims for damages as aforesaid shall have been settled and

satisfactory evidence to that effect furnished.

55. FIRE PREVENTION. The Contractor shall take all reasonable precautions to prevent fires, on the work or in the vicinity of the work, and shall be responsible for all damage from fires due directly or indirectly to any fault of himself or any of his employees.

The Contractor shall observe all applicable regulations pertaining to the prevention of fires in areas in which the work is located.

56. FIRST AID. At his own expense, the Contractor shall provide approved "First Aid" cabinets close to all points where men are at work, or wherever directed, and keep such cabinets stocked with the proper dressings, anti-septics, etc., and shall promptly transport sick or injured employees from the work to points at which they may receive proper care.

57. TEMPORARY SUSPENSION OF WORK. The Engineer shall have the authority to suspend the work wholly or in part for such period as he may deem necessary because of unsuitable weather, such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as he may deem necessary due to the failure on the part of the Contractor to carry out orders given or to perform any provision of the contract. The Contractor shall immediately comply with the written order of the Engineer to suspend the work wholly or in part. The suspended work shall be resumed when conditions are favorable and methods are corrected, as ordered or approved in writing by the Engineer.

If the Engineer orders a suspension of all of the work or a portion of the work which is the current critical operation or operations because of unsuitable weather or such other conditions as are considered unfavorable to the suitable prosecution of the work, the delay caused by said suspension shall be considered unavoidable delay as defined in Section 72, "Unavoidable Delays". If a portion of work at the time of such suspension is not a current critical operation or operations, but subsequently does become the current critical operation or operations, the determination concerning the nature of the delay will be made on the basis of the then current critical operation or operations.

If a suspension of work is ordered by the Engineer because of the failure on the part of the Contractor to carry out orders given or to perform any provision of the contract, the delay caused by said suspension shall be considered avoidable delay as defined in Section 74 "Avoidable Delays".

In the event of a suspension of work under any of the conditions set forth in this Section, such suspension of work shall not relieve the Contractor of his responsibilities under the contract.

58. USE OF COMPLETED PARTS OF THE WORK BEFORE ACCEPTANCE. Whenever, in the opinion of the Engineer, the work or any part thereof is in a condition suitable for use, and the best interest of the City requires such use, the City may take possession of, connect to, open for public use, or use the work or such part thereof.

Prior to the date of acceptance of the work by the Commission, all necessary repairs or renewals in the work or part thereof so used, not due to ordinary wear and tear, but due to defective materials or workmanship or to the operations of the Contractor, shall be made at the expense of the Contractor.

The use by the City of the work or part thereof as contemplated in this section shall in no case be construed as constituting acceptance of the work or any part thereof. Such use shall neither relieve the Contractor of any of his responsibilities under the contract, nor act as a waiver by the City of any of the conditions thereof.

59. USE OF ROADWAYS AND WALKWAYS. The Contractor shall not unnecessarily interfere with the use of any roadway, walkway or other facility for vehicular or pedestrian traffic, by any party entitled to use it. Wherever such interference becomes necessary for the proper and convenient performance of the work, and no satisfactory detour route exists, the Contractor shall, before beginning the interference, provide a satisfactory detour, temporary bridge, or other proper facility for traffic to pass around or over the interference, and shall maintain it in satisfactory condition as long as the interference continues, all without direct payment unless otherwise expressly stipulated in the Special Provisions of the specifications.

60. CLEANING UP. During the progress of the work the Contractor shall keep the premises occupied by him in neat and clean condition, disposing of refuse in a satisfactory manner as often as directed, or as may be necessary so that there shall at no time be any unsightly accumulation of rubbish. On the completion of any portion of the work, the Contractor shall promptly remove all of his equipment, temporary structures and surplus materials of construction not to be used at or near the same location in the later prosecution of other portions of the work; shall satisfactorily dispose of all refuse resulting from the work; and shall leave the premises in a satisfactorily neat and clean condition.

LEGAL AND MISCELLANEOUS

61. LAWS AND REGULATIONS. The Contractor shall keep himself fully informed of and shall strictly comply with all laws, ordinances, regulations and orders of any properly constituted authority affecting this contract, the work to be done, and any persons connected with the work, and shall protect and indemnify the City, the Public Utilities Commission and its or their officers, employees and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regula-

tion or order, whether by the Contractor himself or by his employees or agents. Authorized persons may at any time enter upon any part of the work to ascertain whether such laws, ordinances, rules or orders are being complied with.

The Contractor shall comply with the latest revision of the San Francisco Building Code, the National Electrical Code, California Administrative Code, Title 24, Part 3 - "Basic Electrical Regulations, State Building Standards Electrical Code," and all other regulations of local authorities having jurisdiction.

62. PERMITS AND TAXES. The Contractor shall procure and pay for all building permits, and other permits and licenses, pay all charges and fees, including fees for street opening permits, and give notices necessary and incident to the due and lawful prosecution of work, unless otherwise expressly provided herein.

The Contractor shall pay all sales taxes levied on materials, supplies, or equipment purchased by him and used on or incorporated into the work, and all other taxes properly assessed against his equipment or other property used in connection with the work.

63. RESPONSIBILITY OF CONTRACTOR. The Contractor shall take all responsibility for the work, shall bear all losses resulting to him on account of the amount or character of the work, or because the nature of the ground in or on which the work is done is different from what is assumed or expected, or on account of the weather, floods, unforeseen difficulties, accidents, or any other causes; and he shall assume the defence of, and indemnify and save harmless the City, the Public Utilities Commission, and each member of the Commission, and their officers and agents, from all claims of any kind arising from the performance of this contract.

64. ASSIGNMENTS, SUBCONTRACTS. The Contractor shall constantly give his personal attention to the faithful prosecution of the work. He shall keep the work under his personal control and shall not assign by power of attorney or otherwise, nor subcontract the whole or any part thereof, except as herein provided.

The Contractor shall not sublet or subcontract any portion of the work in excess of one-half (1/2) of one (1) percent of the total original bid when no subcontractor was designated for such work in the original bid, shall not substitute any other person or firm in place of a subcontractor designated in the original bid, nor shall any subcontractor assign or transfer his subcontract or permit the same to be performed by any other contractor, except with the written approval of the Commission, subject to the provisions of the Subletting and Subcontracting Fair Practices Act of the State of California and the applicable provisions of the Administrative Code of the City and County of San Francisco.

The Contractor shall file with the Commission a copy of each contract

which he proposes to enter into for subcontracting or assigning any portion of the work, with such information as will enable the Commission to determine the responsibility and standing of the proposed subcontractor or assignee. No subcontract or assignment will be approved unless the original contract between the Contractor and the Commission is made a part thereof, nor unless it appears to the Commission that the proposed subcontractor or assignee is in every way reliable and responsible and fully able to perform the portion of the work covered by the proposed subcontract or assignment, and to complete said work in accordance with the specifications. Should the Commission determine that the subcontractor proposed for any portion of the work has not the necessary experience or financial qualifications to perform said portion of the work, or that he has not and cannot obtain in due time the necessary equipment to perform said portion of the work, or is otherwise unacceptable, the Contractor shall substitute an acceptable subcontractor or shall perform said work without subcontracting it.

No subcontract or assignment shall relieve the Contractor or his sureties of any liabilities or obligations under this contract.

No assignment by the Contractor of this contract or any part thereof, or of the funds to be received thereunder by the Contractor, will be recognized unless such assignment has had the approval of the Commission and the surety has been given due notice of such assignment in writing.

No assignment will receive such approval unless the instrument of assignment contains a clause to the effect that it is agreed that the funds to be paid the assignee under the assignment are subject to a prior lien for services rendered or materials supplied for the performance of the work called for in said contract in favor of all persons, firms, or corporations rendering such services or supplying such materials.

65. **TERMINATION OF CONTRACT.** If the Contractor should be adjudged a bankrupt or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he or any of his subcontractors should violate any of the provisions of the contract, or if the Commission determines that termination is in the best interests of the City, the Commission may serve written notice upon him and his surety of its intention to terminate the contract, such notice to contain the reasons for such intention to terminate the contract, and unless within 10 days after the serving of such notice, such violation shall cease and satisfactory arrangements for correction thereof be made, the contract shall upon the expiration of said 10 days, cease and terminate. In the event of any such termination, the Commission shall immediately serve written notice thereof upon the surety and the Contractor, and the surety shall have the right to take over and perform and contract. provided, however, that if the surety within 15 days after the serving upon it of notice of termination does not give the Commission written notice of its intention to take over and perform the contract or does not commence performance thereof within 30 days from the date of the serving of such notice, the Commission may take over the work and prosecute the

same to completion by contract or by any other method it may deem advisable, for the account and at the expense of the Contractor, and the Contractor and his surety shall be liable to the Commission for any excess cost occasioned the Commission thereby, and in such event the Commission may without liability for so doing take possession of and utilize in completing the work, such materials, appliances, plant and other property belonging to the Contractor as may be on the site of the work and necessary therefor.

66. UNDERSTANDING. The Contractor hereby acknowledges that he has read every clause in these specifications, has examined the drawings forming part of the specifications, has examined the location where the work is to be done, and has made all inquiries and investigations necessary to enable him to understand thoroughly the intent of all parts of the contract, and the nature of the work, and he agrees that he will not hereafter make any claim for compensation, extension of time or other allowance of any sort, based upon or arising out of any alleged misunderstanding by him of any part of the contract.

MODIFICATIONS OF CONTRACT

67. ALTERATIONS, MODIFICATIONS AND EXTRAS. The Commission or the Engineer may order changes in the work herein required, and may order extra materials and extra work in connection with the performance of the contract, and the Contractor shall promptly comply with such orders.

If changes ordered in design, workmanship or materials are of such a nature as to increase or decrease the cost of any part of the work, the price fixed in the contract shall be increased or decreased by such amount as the Contractor and the Commission may agree upon as the reasonable and proper allowance for the increase or decrease in the cost of the work.

68. FORCE ACCOUNT. If it is impracticable, because of the nature of the work, or for any other reason, to fix an increase in price definitely in advance, the work ordered shall be done under a Force-Account. The order for force account work may fix a maximum price which shall not under any circumstances be exceeded. The amount to be paid to the Contractor for work done under force account shall be the sum of the component costs of such work, directly chargeable thereto, as defined hereunder in the numbered paragraphs 1) to 7), inclusive, and subject to the following provisions:

For force account work done by the Contractor, the amount to be paid shall be the sum of the costs and amounts determined as set forth hereunder in numbered paragraphs 1) to 7), inclusive.

For force account work done by a subcontractor, the amount to be paid to the Contractor shall be the sum of the costs and amounts determined as set forth hereunder in numbered paragraphs 1) to 7), inclusive, plus 5 percent thereof.

The amount paid to the Contractor as provided in the preceding paragraphs shall be understood to include full compensation for any and all expenses incurred by the Contractor and his subcontractors in connection with the force account work.

The aforementioned component costs shall be as follows:

- 1) The cost of labor, including foremen, for the time actually engaged on the force account work.
- 2) The cost of materials furnished, other than those, if any, furnished by the City, incorporated into, or necessarily used in the prosecution of, the force account work, less the salvage value of any materials salvaged upon completion of such work.
- 3) An amount equal to a percentage of the costs determined as set forth above under numbered paragraphs 1) and 2), which amount shall be considered full compensation for profit, tools, plant, depreciation, overhead, superintendence, and the costs of the bond for faithful performance and of the bond for materials and labor. The percentages shall be as follows:

For the cost determined as set forth under the hereinbefore numbered paragraph 1), the percentage shall be 20; and the percentage for costs under 2) hereinbefore shall be 15.

- 4) The cost of the use of equipment on the force account work, calculated at the current California Division of Highways equipment rental rate schedule, plus 15 percent thereof, if the equipment is owned by the Contractor or a subcontractor. If the equipment is rented, the cost thereof shall be based on actual rental invoices and an amount equal to 5 percent of the rental cost shall be added, which amount shall be considered full compensation for carrying charges and all other related costs. Equipment used on force account work shall be of the proper size and type. If, however, equipment of unwarranted size or type and cost is used, the cost of the use of such equipment shall be calculated at the rental rate for equipment of the proper size and type.
- 5) The amounts paid in compliance with the United States Social Security Act, the State of California Unemployment Reserves Commission Act, and the San Francisco Payroll Expense Tax Ordinance, in compliance with Employee Welfare provisions of legal employee-management contracts, and for Workmen's Compensation Insurance.
- 6) The amounts paid for specified, or approved, Public Liability and Property Damage Insurance, and for other specified, or approved, insurance.

- 7) The amounts paid in compliance with the State of California Retail Sales Act and the State of California Use Tax Act and City and County of San Francisco Sales Tax.

City May Furnish Materials. - The City reserves the right to furnish such materials as it may deem expedient, and no allowance will be made for profit thereon.

Recording, Billing, and Certifying of Charges. - All force account charges shall be recorded daily upon report sheets prepared by the Engineer, furnished to the Contractor, and signed by both parties, which daily reports shall thereafter be considered the true record of the force account work done. All bills for force account work shall be presented monthly at the time progress estimates are being made, and shall be accompanied by the original receipted bills for materials, equipment rental, and copies of payrolls bearing the Contractor's signed certification as to the truth and accuracy of such copies.

The above described methods of determining the payment for work and materials shall not apply to the performance of any work or the furnishing of any materials which, in the judgment of the Engineer, may properly be classified under items for which prices are established in the contract.

69. ORAL MODIFICATIONS. No oral statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of this contract.

TIME ALLOWANCES

70. TIME ALLOWANCE FOR COMPLETION OF CONTRACT WORK. The Contractor shall complete all or any designated portion of the work called for under the contract in all parts and requirements within the time allowance or allowances set forth in the Special Provisions.

71. EXTENSION OF TIME. The commission may extend the time for, completion of the work under a contract, upon the commission finding that such work cannot be completed within the specified time because of an unavoidable delay as herein restricted. Such extensions shall be in writing but in no event shall any extension be granted subsequent to the final acceptance of the contract work by the Commission.

No extension of time will be granted for any cause unless the Contractor can demonstrate to the satisfaction of the Engineer by means of critical path analysis and/or other documentation as necessary, that a delay in the critical operation or operations did in fact occur and that the delay was beyond the control of the Contractor and could not have been avoided through the exercise of care, prudence, foresight and diligence.

The critical operation or operations is defined as work which if delayed would cause a delay in the final completion of the entire work.

72. UNAVOIDABLE DELAYS. Unavoidable delay is an interruption of the work beyond the control of a Contractor and which interruption the Contractor could not have avoided by the exercise of care, prudence, foresight and diligence. Such delays include and are limited to acts of God; acts of the public enemy; adverse weather conditions; fires; floods; windstorms; tornadoes; wars; riots; insurrections; epidemics; quarantine restrictions; strikes; lockouts; sitdowns; slow-downs; other labor disputes; labor shortages; inability of Contractor to procure labor; material shortages; inability of Contractor to procure material; fuel shortages; freight embargoes; accidents; acts of a governmental agency; priorities or privileges established for the manufacture, assembly or allotment of materials by order, decree, or otherwise of the United States or by any department, bureau, commission, committee, agent, or administrator of any legally constituted public authority; changes in the work ordered by the contracting officer, board or commission insofar as they necessarily require additional time in which to complete the entire work; the prevention by the City and County of San Francisco of a Contractor from commencing or prosecuting the work; the prevention of a Contractor from commencing or prosecuting the work because of the acts of others, excepting the Contractor's sub-contractors; the prevention of a Contractor from commencing or prosecuting the work because of the failure of the City and County of San Francisco to furnish the necessary materials, when required by the terms of a contract and when requested by the Contractor in the manner provided in said contract; and, inability to procure or failure of public utility service. The duration of said unavoidable delays shall be limited to the extent that the commencement, prosecution and completion of the work are delayed thereby, as determined by the commission.

73. UNAVOIDABLE DELAYS OTHER THAN THOSE STATED IN SECTION 72. Upon the recommendation of the Commission, the Board of Supervisors may provide by resolution for extensions of time relating to specific contracts for causes other than those stated in section 72 hereof which the Contractor could not have avoided by the exercise of care, prudence, foresight and diligence.

74. AVOIDABLE DELAYS. Avoidable delays in the prosecution or completion of any work shall include (a) all delays which could have been avoided by the exercise of care, prudence, foresight and diligence on the part of the Contractor, (b) delays in the prosecution of parts of the work, which may in themselves be unavoidable but do not necessarily prevent or delay the Prosecution of other parts of the work, nor the completion of the whole work within the time specified, (c) reasonable delays resulting from time required by the City and County of San Francisco for approval of plans submitted by the Contractor and for the making of surveys, measurements and inspections, and (d) delays arising from interruptions occurring in the prosecution of the work on account of the reasonable interference from other Contractors employed by the City and County of San Francisco, which do not necessarily prevent the completion of the whole work within

the time specified.

75. NOTICE OF DELAY. The Contractor shall promptly notify the Commission in writing of all anticipated delays in the prosecution of the work and, in any event, promptly upon the occurrence of a delay. Said notice shall constitute an application for an extension of time only if said notice requests such extension and sets forth the Contractor's estimate of the additional time required together with a full recital of the causes of unavoidable delays relied upon. The Commission may take steps to prevent the occurrence or continuance of the delay, may classify the delay as avoidable or unavoidable, and may determine to what extent the completion of the work is delayed thereby.

76. CITY WILL NOT PAY DAMAGES FOR DELAY EXCEPT UNDER SPECIAL CIRCUMSTANCES. No damages or compensation of any kind shall be paid to a Contractor because of delays in the progress of the work, whether such delays be avoidable or unavoidable; provided, however, the City may pay for (1) delays caused to the Contractor by the City and (2) such unavoidable delays as may be specifically stated in the contract. Such latter delays will be compensated for only under the conditions specified in the contract.

77. EXTENSION OF TIME DOES NOT WAIVE CITY'S RIGHTS. The granting of an extension of time because of unavoidable delays shall in no way operate as a waiver on the part of the City and County of San Francisco or the Commission, of the right to collect liquidated damages for other delays or of the right to collect other damages or of any other rights to which the City and County of San Francisco is entitled.

78. LIQUIDATED DAMAGES. By entering into this contract, Contractor agrees that in the event completion of this contract is delayed beyond the scheduled completion date, as extended for unavoidable delays, City will suffer actual damages that will be impracticable or extremely difficult to determine; further, Contractor agrees that the sum set forth in the Special Provisions per day for each and every calendar day of delay beyond the scheduled completion date, as adjusted for unavoidable delays, is not a penalty but is a reasonable amount for said damages under the circumstances existing at the time the contract is awarded.

When the actual progress of the work indicates that completion of the work may be delayed beyond the scheduled completion date, as extended for unavoidable delays, a sum representing the projected liquidated damages shall be deducted from any money due to the Contractor. If subsequent to the withholding of such projected liquidated damages, the progress of the work indicates that the number of days relative to such withheld amount is reduced or eliminated, the corresponding amount will be paid to the Contractor at the time of the next payment.

Should the money due or to become due to the Contractor be insufficient to cover such agreed liquidated damages, then the Contractor forthwith shall pay the remainder to the City and County.

79. CONTRACTS AWARDED IN CONSIDERATION OF RELATIVE TIME ESTIMATES OF BIDDERS FOR COMPLETION OF THE WORK. When any award of contract has been made in consideration, in whole or in part, of the relative time estimates of bidders for the completion of the work, the provisions of sections 72, 73 and 74 shall not apply and no extension of time may be granted on such contract beyond the time specified for completion, unless the liquidated damages for each day the work is uncompleted beyond the specified time shall be collected; provided, however, that this shall not apply to unavoidable delays due to acts of God.

ESTIMATES, PAYMENTS AND GUARANTEE BOND

80. DETERMINATION OF QUANTITIES FOR PAYMENT. The quantity of work to be paid for under any item for which a unit price is fixed in the contract shall be the number, as determined by the Engineer, of units of work satisfactorily completed in accordance with the specifications and as directed pursuant to the specifications. Unless otherwise provided, the determination of the number of units of work so completed will be based, so far as practicable, on actual measurement or count, within the prescribed or ordered limits, and no payment will be made for work done outside of such limits. Measurements and computations will be made by such methods as the Engineer may consider appropriate for the class of work measured.

81. SCOPE OF PAYMENT. Except as otherwise expressly stipulated in the specifications, payment to the Contractor at the unit price or other price fixed in the contract for performing the work required under any item, or (if the contract is on a lump sum price basis) at the lump sum price fixed in the contract for performing all work required under the contract, shall be full compensation for furnishing all labor, materials, equipment and tools necessary to the work, and for performing and completing in accordance with the specifications, all work required under the item or under the contract, and for all expense incurred by the Contractor for any purpose in connection with the performance and completion of said work.

82. PROGRESS ESTIMATES AND PAYMENTS. Progress payments will be made if so stipulated in the Invitation for Proposals in the Special Provisions of the specifications; otherwise, no payment will be made before all work required under the contract is completed.

If progress payments are provided for, the Engineer will, on or about the last day of each month, make an estimate of the value of the work done by the Contractor in the performance of the contract. The first such estimate will be of the value of the work done after the Contractor commenced the performance of the contract, and every subsequent estimate, except the final estimate, will be of the value of the work done after that included in the last preceding estimate. Such estimates need not be based on strict measurements, but may be approximate only, and will be in due proportion to the whole amount of money, including payments previously made, that will have become due according to the contract when all work required under

the contract shall have been completed. Unless otherwise provided in the Special Provisions, no allowance will be made in these estimates for materials or equipment not incorporated into the work.

Unless otherwise provided in the Special Provisions, progress payments will be made in the following manner:

- (a) As soon as practicable after the making of each estimate for progress payment, the Commission will pay to the Contractor in the manner provided by law, an amount equal to 90 percent of said Engineer's estimate.
- (b) It is further provided that when the Engineer determines that the contract is 50 percent or more complete, the Contractor is making satisfactory progress, and there is no specific cause for greater withholding, the Commission may pay to the Contractor an amount which shall not exceed the lesser of 95 percent of said Engineer's estimate or 95 percent of the contract price.
- (c) In addition, when the Engineer determines that the contract is 95 percent complete, the Commission may reduce the amount withheld from payment to such lesser amount as the Commission determines is adequate security for the fulfillment of the balance of the work and other requirements of the contract, but in no event will said amount be reduced to less than 125 percent of the estimated value of the work yet to be completed as determined by the Engineer. Such reduction will only be made upon the written request of the Contractor and shall be approved in writing by the surety on the Performance Bond and by the surety on the Labor and Material Bond. The signature of the officer executing the approval for the surety shall be properly acknowledged and the power of attorney authorizing him to give such consent must either accompany the document or be on file with the Commission.
- (d) In agreeing to such a revised method of progress payments as set forth in Paragraphs (b) and (c), above, the Commission reserves the right to return to the original method of progress payments as set forth in Paragraph (a), above, if at any time the Engineer finds that either the Contractor is not making satisfactory progress or there is a specific cause for greater withholding.
- (e) Payment may at any time be withheld if in the judgment of the Engineer, the work is not proceeding in accordance with the contract, or the Contractor is not complying with the requirements of the contract.

Before any progress payment or the final payment is made, the Contractor may be required to submit satisfactory evidence that he is not delinquent in payments to his employees or creditors for labor and materials incorporated into the work.

83. FINAL ESTIMATE AND PAYMENT. When the work shall have been completed in accordance with the contract, the Engineer will make final and exact measurements of the amount of each class of work performed and make a final estimate thereof at the prices named in the contract, and the City will pay to the Contractor in the manner provided by law, the balance due under such estimate excepting such sums as may be lawfully retained under any provisions of the contract.

Whenever it is specified or indicated on the drawings, that the Contractor is to do work, or furnish materials for which no price is fixed in the contract, it is understood and agreed, that there is included in each lump sum, or unit price bid, the entire cost of all work, incidental to the completion of that part of the work covered by such lump sum, or unit price bid, or if not directly incidental to any specific bid item, the cost thereof has been distributed among those bid items deemed most appropriate by the Contractor.

All prior estimates and payments shall be subject to correction in the final estimate and payment.

The estimate of the Engineer shall be final and conclusive evidence of the amount of work performed by the Contractor under this contract, and shall be taken as full measure of compensation to be received by the Contractor.

Acceptance by the Contractor of payment of the amount withheld by the City until the completion and acceptance of the work as herein provided, shall constitute a complete release of the City by the Contractor for any and all further claims against the City for compensation or damages under the contract, except that the Contractor may make a written reservation of rights as to those items in dispute and as to those items explicitly set forth in such reservation, Contractor's acceptance of payment will not constitute a complete release. The reservation of rights shall be executed by both parties and shall be in a form approved by the City Attorney and the Commission..

Before final payment can be made, the Contractor shall also furnish the Engineer with the following:

- a. All drawings, catalogues, instruction sheets and information as required herein.
- b. One signed copy of the Release as required in Section 87.

c. The Guarantee Bond, as required in Section 88.

d. A statement to the effect that the final quantities as submitted by the Engineer are satisfactory.

84. PAYMENTS DO NOT IMPLY ACCEPTANCE OF WORK. The granting of any progress payment or payments by the Commission, or the receipt thereof by the Contractor, shall not be understood as constituting in any sense acceptance of the work or of any portion thereof and shall in no way lessen the liability of the Contractor to replace unsatisfactory work or material, though the unsatisfactory character of such work or material may not have been apparent or detected at the time such payment was made.

85. RETENTION OF SUMS CHARGED AGAINST CONTRACTOR. It is mutually understood and agreed that when under any provision of this contract the City shall charge any sum of money against the Contractor, the amount of such charge shall be deducted and retained by the City from the amount of the next succeeding progress estimate, or from any other moneys due or that may become due the Contractor on account of the contract. If on completion or termination of the contract such moneys due the Contractor are found insufficient to cover the City's charges against him, the City shall have the right to recover the balance from the Contractor or his sureties.

86. WORK TO BE DONE WITHOUT DIRECT PAYMENT. Whenever it is specified herein that the Contractor is to do work or furnish materials of any class for which no price is fixed in the contract, it shall be understood that he is to do such work or furnish such materials without extra charge or allowance or direct payment of any sort, and that the cost of doing such work or furnishing such materials is to be included by him in his price bid, unless it is expressly specified herein, in particular cases, that such work or material is to be paid for as extra work.

87. RELEASE. The Contractor and each assignee under an assignment in effect at the time of final payment shall, if required by the Commission, execute and deliver at the time of final payment and as a condition precedent to final payment, a release in form and substance satisfactory to and containing such exemptions as may be found appropriate by the Commission, discharging the Commission, its officers, agents and employees of and from liabilities, obligations, and claims arising under this contract.

88. GUARANTEE. The Contractor hereby guarantees that all materials furnished and installed by him and all workmanship performed by him under this contract will fully meet all requirements of the contract as to quality of workmanship and materials, and as strength.

The Contractor hereby further agrees that if within a period of two years after final acceptance, by the Engineer, of the work done under the contract, any part of the work, furnished and installed or constructed by

him shall fail to fulfill any of the requirements of the contract, he will, without delay, and with the least practicable inconvenience to the City, and without further cost to the City, repair or replace defective or otherwise unsatisfactory materials furnished by him, or workmanship performed by him in any parts of said work.

Should the Contractor fail to act promptly in accordance with these requirements, or should the exigencies of the case require repairs or replacements to be made before the Contractor can be notified or can respond to notification, the City shall have the right to make the necessary repairs or replacements at the expense of the Contractor.

The Contractor shall be responsible for the full expense incidental to making good any and all of the above guarantees and agreements.

The above guarantee and agreements are covenants, the performance of which shall be secured by Guarantee bond which shall be delivered to the Commission by the Contractor before final acceptance of the work done under the contract will be made by the Commission, in an amount of ten per cent (10%) of the total contract amounts, and shall remain in force for a period of two years after the date of final acceptance by the Engineer of the work done under the contract.

89. NOTICE OF POTENTIAL CLAIM. The Contractor shall not be entitled to the payment of any additional compensation for any act, or failure to act, by the Engineer, including failure or refusal to issue a contract modification or for the happening of any event, thing, occurrence, or other cause, unless he shall have given the Engineer due written notice of potential claim as hereinafter specified, provided, however, that compliance with this Section shall not be a prerequisite as to matters within the scope of the protest provisions in Section 75, "Notice of Delay", nor to any claim which is based on differences in measurements or errors of computation as to contract quantities.

The written notice of potential claim shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, and, insofar as possible, the amount of the potential claim. The said notice as above required must have been given to the Engineer prior to the time that the Contractor shall have performed the work giving rise to the potential claim for additional compensation, if based on an act or failure to act by the Engineer, or in all other cases within 15 days after the happening of the event, thing, occurrence, or other cause giving rise to the potential claim.

It is the intention of this Section 89 that difference between the parties arising under and by virtue of the contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that he shall have no right to additional compensation for any claim that may be based on any such act,

failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was filed.

WORKING CONDITIONS

90. CONTRACTOR'S WORKING CONDITIONS. The Contractor's working conditions shall be governed by the requirements of Section 7.204 of the Charter and Sections 6.33 through 6.45 of the Administrative Code of the City and County of San Francisco. Accordingly, the following provisions are requirements of this contract:

- (1) The Contractor shall pay to all persons performing labor in and about the work provided for in this contract not less than the highest general prevailing rate of wages determined as set forth hereinafter for the respective crafts and employments, including such wages for holiday and overtime work.
- (2) The Contractor shall insert in every subcontract or other arrangement which he may make for the performance of any work on labor on the work provided for in this contract, a provision that said subcontractor shall pay to all persons performing labor or rendering service under said subcontract or other arrangement, the highest general prevailing rate of wages as set forth hereinafter for the respective crafts and employments, including such wages for holiday and overtime work.
- (3) The Contractor shall keep or cause to be kept an accurate record showing the name, occupation, and per diem pay, of each person engaged in the execution of this contract, and every subcontractor who shall undertake the performance of any part of work herein required shall keep a like record of each person engaged in the execution of the subcontract. All of said records shall at all times be open to the inspection of and examination of the duly authorized officers and agents of the City and County of San Francisco.
- (4) Should the Contractor, or any subcontractor who shall undertake the performance of any part of the work herein required, fail or neglect to pay to the several persons who shall perform labor under this contract, subcontract or other arrangement for the work, the highest general prevailing rate of wages determined as hereinafter set forth, he shall forfeit, and in the case of any subcontractor so failing or neglecting to pay said wage, the original Contractor and the subcontractor shall jointly and severally, forfeit to the City and County of San Francisco the sum of twenty five (\$25.00) dollars per day for each laborer, workman or mechanic employed for each calendar day or portion thereof, while they shall be so employed and not paid said highest general prevailing rate of wages; and the Commission

when certifying to the Controller any payment which may become due under the terms of this contract, will deduct from said payment or payments the total amount of said forfeiture provided for, and the Controller, in issuing his warrant for any such payment, will deduct from the amount which would otherwise be due on said payment or payments the amount of said forfeiture or forfeitures as so certified.

- (5) No person performing labor or rendering service in the performance of any contract or subcontract for the work herein required, shall perform labor for a longer period than forty (40) hours per week, or five (5) days of eight (8) hours each except in those crafts in which a shorter work day now prevails by agreement in private employments. However, the performance of labor for periods longer than forty (40) hours per week, five (5) days per week, or eight (8) hours per day may be permitted when conditions so warrant upon the approval of the Engineer, provided that compensation for all hours worked in excess of forty (40) hours per week or eight (8) hours per day conforms to the requirements of the Labor Code of the State of California and all applicable federal laws. Any contractor or subcontractor who shall violate this provision shall be liable for the same penalties and forfeits as those specified in subdivision 4 of this section, for each laborer, mechanic or artisan employed for each calendar day or portion thereof whereon such laborer, mechanic or artisan is compelled or permitted to work more than the days and hours specified herein.

IT IS HEREBY UNDERSTOOD AND AGREED that all provisions of said Section 7.204 of the Charter and Sections 6.33 through 6.45 of the Administrative Code applicable to this contract shall be binding upon the Contractor and any of his subcontractors affected thereby, and that all provisions which said Section 7.204 of the Charter and Sections 6.33 through 6.45 of the Administrative Code require to be incorporated into every contract for any public work or improvement are provisions of this contract, whether such provisions are or are not specifically mentioned or set forth herein.

91. WAGE RATES FOR SPECIFIED EMPLOYMENTS. The "highest general prevailing rate of wages," referred to in Paragraph (4) of Section 90, is determined by the State of California, Department of Industrial Relations. Copies of the current General Wage Rate Determinations are on file in the office of the Utilities Engineering Bureau, Room 2, 693 Vermont Street, San Francisco, California 94107, and are available to any interested party on request.

"Lease" shall mean and include a person or tenant taking possession of property under a lease as herein provided, and further includes a bailment agreement providing a rental for personal property.

"Sublease" shall mean and include a lease by which a lease or tenant grants or lets to another person part or all of the leased property for a shorter term and under which said lease or tenant retains some right or interest under the original lease.

"Sex" shall mean the character of being male or female.

"Sexual orientation" shall mean the choice of human adult sexual partner according to gender.

"Disability" is a physical or mental impairment which does not make the person incapable of adequately performing his or her duties with a reasonable accommodation to his or her disability, and does not make the person incapable of performing such duties in a manner which would not endanger his or her health and safety or the health and safety of others.

"Supplier" means any person or persons, firm, partnership, corporation, or any combination thereof, who submits a bid or enters into a contract with the awarding agency of the City and County or who submits a bid or enters into a contract with any contractor, subcontractor, lessee, sublessee, franchisee or concessionaire engaged in the performance of a contract let, awarded or "rented by or on behalf of the City and County, for the supplying of goods, materials, services, equipment or furnishings.

Sec. 128.2 Nondiscrimination Provisions of Contract.

Every contract or subcontract for or on behalf of the City and County of San Francisco, as provided in Sec. 128.1 hereof, shall contain the provisions following, which shall be known as the nondiscrimination provisions of such contract. In the performance of this contract, the contractor, subcontractor or supplier agrees as follows:

applicant for employment because of race, color, religion, ancestry, national origin, age, sex, sexual orientation or disability. The contractor, subcontractor or supplier will take affirmative action to ensure that applicants are employed, and that employees are treated equally during employment, without regard to their race, color, religion, ancestry, national origin, age, sex, sexual orientation or disability. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Nothing in this ordinance shall require or prohibit the establishment of new classifications of employees in any given craft. The provisions of this action with respect to age shall not apply /1/ termination of employment because of the terms or conditions of any bona fide retirement or pension plan, /2/ operation of the terms or conditions of any bona fide retirement or pension plan which has the effect of a minimum service requirement, /3/ operation of the terms or conditions of any bona fide group or insurance plan. The contractor, subcontractor or supplier agrees to post in conspicuous places, available to employees and applicants or employees and applicants for employment, notices in such form and content as shall be furnished or approved by the awarding authority setting forth the provisions of this section.

(b) Except as in this section provided or in cases where the law compels or provides for such action any provisions in any contract agreement or undertaking entered into on or after the effective date of this chapter which prevent or tend to prevent the employment of any person solely by reason of his/her age, who has attained the age of forty (40) years and has not attained the age of sixty-five (65) years shall be null and void.

(c) The contractor, subcontractor or supplier will in all solicitations or advertisements for employees placed by or on his/her behalf, state that qualified applicants will receive consideration for employment without regard to race, creed, color, ancestry, national origin, age, sex, sexual orientation or disability. Any solicitations or advertisements that satisfy similar requirements under Federal law, subject to the approval of the awarding authority, will also satisfy this requirement.

(d) The contractor, subcontractor or supplier will send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice, in such form and content as shall be furnished or approved by the awarding authority, advising the said labor union of workers' representative of the contractor's, subcontractor's or supplier's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(e) The contractor, subcontractor or supplier will permit access to his records of employment, employment advertisements, application forms, and other pertinent data and records by the awarding authority, the Fair Employment Practices Commission, or the San Francisco Human Rights Commission, for the purposes of investigation to ascertain compliance for employment.

CHAPTER 128.

of the

San Francisco Administrative Code Nondiscrimination in Contracts.

Sec. 128.1 All contracts to include Nondiscrimination Provisions; Definitions.

Sec. 128.2 Nondiscrimination Provisions of Contract.

Sec. 128.3 Human Rights Commission Empowered.

Sec. 128.4 Affirmative Action Guidelines.

Sec. 128.5 Chapter Applies Only to Discriminatory Employment Practices.

Sec. 128.6 Severability.

Sec. 128.1 All Contracts to include Nondiscrimination Provisions; Definitions.

All contracting agencies of the City and County of San Francisco, or any department thereof, acting for or on behalf of the City and County, shall include in all contracts, franchisee, leases, concessions or other agreements involving real or personal property, hereafter negotiated, let awarded, granted, renegotiated, extended or renewed, in any manner or as to any portion thereof, a provision obligating the contractor, franchisee, lessee, concessionaire, or other party of said agreement not to discriminate on the ground or because of race, color, creed, national origin, ancestry, age, sex, sexual orientation or disability, against any employee of, or applicant for employment with, such contractor, franchisee, lessee or concessionaire to include a similar provision in all subcontracts, subleases or other subordinate agreements let, awarded, negotiated or entered into thereafter.

has not attained the age of sixty-five (65) years. For the purposes of this section, discrimination because of age shall mean dismissal from employment of, or refusal to employ or rehire any person because of his/her age, if such person has attained the age of forty (40) years and has not attained the age of sixty-five (65) years, if the person is physically able and mentally competent to perform the services required. Age limitations of apprenticeship programs in which the State or its political subdivisions participate shall not be considered discriminatory within the meaning of this section.

"Contract" shall mean and include an agreement to provide labor, materials, supplies or services in the performance of a contract, franchise, concession or lease awarded, let or awarded for and on behalf of the City and County of San Francisco.

"Contractor" means any person or persons, firm, partnership, corporation, or combination thereof, who submits a bid or enters into a contract with department heads and officers empowered by law to enter into contracts on the part of the City and County for public works or improvements to be performed, or for a franchise, concession or lease of property, or for goods, services or supplies to be purchased, at the expense of the City and County or to be paid out of moneys deposited in the treasury or out of trust moneys under the control or collected by the City and County.

"Subcontractor" means any person or persons, firm, partnership, corporation or any combination thereof, who enters into a contract or agreement with the contractor to perform a substantial specified portion of the contract for public works, improvements, supplies, goods or services, or for a lease, franchise or concession, let, granted or awarded for or on behalf of the City and County in accordance with the plans and specifications of such contract. Such term shall include any contractor who enters into a contract with any subcontractor for the performance of 10 per cent or more of the subcontract.

"Subcontract" shall mean and include an agreement or contract under or subordinate to a prime contract, franchise lease or concession granted, let or awarded for or on behalf of the City and County of San Francisco.

"Concession" includes a grant of land or other property by or on behalf of the City and County of San Francisco to a person for the purpose or use specified in said grant.

"Concessionaire" shall mean and include a person who is the grantee or beneficiary of a concession as herein defined.

"Franchise" shall mean and include a right or privilege conferred by grant from the City and County of San Francisco, or any contracting agency thereof, and vested in and authorizing a person to conduct such business or engage in such activity as is specified in said grant.

"Franchisee" shall mean and include a person who is the grantee or beneficiary of a franchise as herein defined.

"Lease" shall mean and include a contract by which the City and County of San Francisco, or any contracting agency thereof, grants to a person the temporary possession and use of property, for goods, and the latter agrees to return the same to the former at a future time.

contract. Any contractor who violates any provision of this contract shall be deemed to have violated the contract.

non-discrimination provisions of this contract upon:

- (1) A finding by the Director of the San Francisco Human Rights Commission, or such other official who may be designated by the Human Rights Commission, that contractor, subcontractor, or supplier has willfully violated such non-discrimination provisions; or
- (2) A finding by the Fair Employment Practices Commission of the state of California that contractor, subcontractor or supplier has violated any provision of the Fair Employment Practice Act of California or the non-discrimination provisions of this contract, provided that the Fair Employment Practices Commission has issued a final order pursuant to Section 1476 of the Labor Code or has obtained a final injunction pursuant to Section 1429 of the Labor Code, provided further that for the purposes of this provision, an order of injunction shall not be considered final during the period within which 1/1 appeal may be taken, or 1/2 the same has been stayed by order of court, or 1/3 further proceedings for vacation, reversal or modification are to progress before a competent administrative or judicial tribunal.

(3) Upon such finding by the Director of the Human Rights Commission, or other official designated by the Human Rights Commission, or the Fair Employment Practices Commission, the awarding authority shall notify contractor, subcontractor or supplier that unless he/she demonstrates to the satisfaction of the Director of the San Francisco Human Rights Commission, or other official designated by the Human Rights Commission, within such reasonable period as the Human Rights Commission shall determine, that the violation has been corrected, action will be taken as set forth in subparagraph (g) and (h) hereof.

(4) The Human Rights Commission shall, within ten days of the date of issuance of any finding by the Director of the Human Rights Commission or other official designated by the Commission in the enforcement of this chapter, mail to any person or persons affected by said finding, a copy of said finding, together with written notice of his right to appeal. Notice of appeal must be filed in writing with the chairman of the Commission within 20 days of the date of mailing said copy and notice.

(5) For purposes of appeal proceedings under this Section, a quorum shall consist of eight members of the Commission. The vote of the majority of the full Commission shall be necessary to affirm, reverse or modify such decision, order or other action rendered hereunder. Should a member of the Human Rights Commission be designated under Sec. 128.2 (f) (1) of this contract, that Commissioner may not participate in an appeal under this Section except as a witness.

(6) The presiding officer of the Commission shall have the power to administer oath to witnesses in appeals before the Commission under this Section. In the event that any person shall fail or refuse to appear as a witness in any such proceeding after being requested to do so, and if it shall appear to the Commission that his/her testimony, or books, records, documents or other things under his/her control are material and relevant as evidence to the matter under consideration by the Commission in the proceeding, the presiding officer of the Commission may subpoena such person, requiring his/her presence at the proceeding, and requiring him/her to bring such books, records, documents or other things under his/her control.

(7) All appeals to the Human Rights Commission shall be open to the public. Records and minutes shall be kept of such proceedings and shall be open to public inspection. Upon reaching a decision in any appeal, the Commission shall give written notice thereof to the Director of the Human Rights Commission, or other official designated by the Human Rights Commission, and the appellant or appellee. The decision of the Commission shall be final unless within 15 days of the filing and service of written notice thereof appropriate legal proceedings are filed in a court of competent jurisdiction by any party to this contract.

(8) If any contractor, subcontractor or supplier under contract to the City and County of San Francisco shall fail to appear at an appeal proceeding of the Commission after having been given written notice to appear, such failure to appear shall be grounds for cancellation of the contract or subcontract and such contractor, subcontractor or supplier shall be deemed to have forfeited all rights, benefits and privileges thereunder.

(9) The Human Rights Commission of San Francisco shall promulgate rules and regulations for the implementation of the non-discrimination provisions of this contract, and such rules and regulations shall, so far as practicable, be similar to those adopted in applicable federal executive orders.

any other penalties herein provided for the violation of the non-discrimination provisions of this contract or for the failure of any contractor, subcontractor or supplier to abide by the rules and regulations herein contained, this contract may be forthwith cancelled, terminated or suspended, in whole or in part, by the contracting agency upon the basis of a finding as set forth in Sec. 128.2 (1) that the contractor, subcontractor or supplier has discriminated contrary to the provisions of this contract, and all moneys due or to become due hereunder may be forfeited to, and retained by, the City and County of San Francisco.

(h) A breach of the non-discrimination provisions in the performance of this contract shall be deemed by the City and County of San Francisco to be a material breach of contract and basis for determination by the officer, board or awarding authority responsible for the awarding or letting of such contract that the contractor, subcontractor or supplier is an irresponsible bidder as to all future contracts for which such contractor, subcontractor or supplier may submit bids. Such person, firm or corporation shall not for a period of two (2) years thereafter, or until he/she shall establish and carry out a program in conformity with the non-discrimination provisions of this contract, be allowed to act as a contractor, subcontractor or supplier under any contract for public work, goods or services for or on behalf of the City and County of San Francisco.

(1) Nothing contained in this contract shall be construed in any manner so as to prevent the City and County of San Francisco from pursuing any other remedies that may be available at law.

(3) Nothing contained in this contract shall be construed in any manner so as to require or permit the hiring of aliens on public works as prohibited by law.

(k) The contractor, subcontractor or supplier will meet the following standards for affirmative compliance:

(1) If the contractor, subcontractor or supplier has been held to be an irresponsible bidder under Sec. 128.2(h) hereof, he/she shall furnish evidence that he/she has established and is carrying out a program in conformity with the non-discrimination provisions of this contract.

(2) The contractor, subcontractor or supplier may be required to file with the Human Rights Commission a basic compliance report, which may be a copy of the Federal EEO-1, or a more detailed report as determined by the Commission. Willful false statements made in such reports shall be punishable as provided by law. No contractor, subcontractor or supplier shall be held in nonconformance for not filing such a report with the Human Rights Commission unless he/she has been specifically required to do so in writing by the Human Rights Commission.

(3) Personally, or through his/her representatives, the contractor, subcontractor or supplier shall, through negotiations with the unions with whom he/she has collective bargaining or other agreements requiring him/her to obtain or clear his/her employees through the union, or when he/she otherwise uses a union as an employment resource, attempt to develop an agreement which will:

(a) Define and outline responsibilities for non-discrimination in hiring, referral, upgrading and training.

(b) Otherwise implement an affirmative anti-discrimination program in terms of the union's specific areas of skill and geography, such as an apprenticeship program, to the end that minority workers will be available and given an equal opportunity for employment.

(4) The contractor, subcontractor or supplier or trade association shall notify the contracting agency of opposition to the non-discrimination provisions of this contract by individuals, firms or organizations during the term of this contract.

Sec. 128.3 Human Rights Commission Empowered.

The San Francisco Human Rights Commission, its presiding officer and its Director are hereby granted the power to do all acts and exercise all powers referred to in section 128.2 hereof.

Sec. 128.4 Affirmative Action Guidelines.

The following affirmative action guidelines shall apply to all contracts for or on behalf of the City and County of San Francisco, as provided in Sec. 128.1 hereof.

In order to be eligible to bid or to have a bid considered by the awarding agency, the contractor on all contracts shall submit an affirmative action program which shall meet the requirements of the Human Rights Commission.

The Human Rights Commission may also require contractors, subcontractors and suppliers to take part in a prebid or preaward conference in order to develop, improve or implement a qualifying affirmative action program.

SECTION 93
ADDENDUM TO ALL
CITY AND COUNTY OF SAN FRANCISCO CONTRACTS

APPRENTICESHIP PROGRAM:

Attention is directed to the provisions in Sections 1777.5 (Chapters 1087, 1389, Statutes of 1972) and 1777.6 (Chapter 280, Statutes 1971) of the Labor Code concerning the employment of apprentices by the contractor or any of his sub-contractors.

Section 1777.5, as amended, requires the contractor or sub-contractor employing tradesman in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of the public works project, and which administers the apprenticeship program in that trade, for a certificate of approval—except when they are already covered by the local apprenticeship standards. The certificate will also fix the ratio of apprentices to journeymen that will be used in the performance of the contract. The ratio of apprentices to journeymen in such cases shall not be less than one to five except when the contractor provides evidence that he employs registered apprentices on all of his contracts in the state on an annual average of not less than one apprentice to eight journeymen. The joint apprenticeship committee has discretion to grant a certificate exempting a contractor from the 1 — to — 5 ratio if it finds any one of the following conditions is met:

- A. In the event unemployment for the previous three-month period in such area exceeds an average of 15 percent, or
- B. In the event the number of apprentices in training in such area exceeds a ratio of 1 to 5, or
- C. If there is a showing that the apprenticeable craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either (1) on a statewide basis, or (2) on a local basis.
- D. If assignment of an apprentice to any work performed under a public works contract would create a condition which would jeopardize his life or the life, safety, or property of fellow employees or the public at large, or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyman.

The contractor is required to make contributions to funds established for the administration of apprenticeship programs if he employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions.

The contractor and any sub-contractor under him shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.

Section 1777.5, as amended, does not apply to prime contracts involving less than thirty thousand dollars (\$30,000.00) or 20 days.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

SPECIAL PROVISIONS

P- 1 OBJECTIVE OF THE WORK The objective of the work is to reduce lighting energy use in municipal facilities while maintaining or improving the function of various lighting systems. By maximizing the efficiency of existing lighting equipment it will be possible to:

- Reduce lighting energy cost
- Reduce life cycle cost
- Improve, in many cases, lighting quality

These benefits will be accomplished by using various retrofit techniques. The goal of the work is to reduce lighting energy use by 35% in four municipal facilities.

P. 2 LOCATION AND GENERAL DESCRIPTION OF WORK The work under this contract is in the City and County of San Francisco at four municipal facilities:

- City Hall
- City Hall Annex
- Main Public Library
- Hall of Justice

The work in general consists of furnishing and installing various retrofit components of lighting systems in order to reduce energy use in the facilities. The work includes design and the installation of optical reflector systems, delamping, and relamping light fixtures, ballast disconnection, shunt, lamp shield, side panel installation, and fixture cleaning.

The bidder shall inform himself by careful personal examination of the location of the proposed work, and by such other means as he may think proper, as to the actual conditions and requirements of the work; as to any unusual difficulties that he may encounter in the prosecution of the work; as to character and amount of all classes of labor and materials necessary to carry out the work; and as to all other circumstances and conditions affecting the cost of the work; and he must include in his bid all expenses he may find it necessary to incur to complete the work in accordance with the contract. The depositing of a proposal with the Commission shall constitute acknowledgement on the part of the bidder that he has complied with the terms of this paragraph.

3 GENERAL PROVISIONS All General Provisions shall remain in full effect except as explicitly modified herein.

P - 4 DEFINITIONS (Amending Section 1 of the General Provisions - "Engineer"). For the purposes of this project the Director of the Bureau of Energy Conservation ("Director") shall exercise supervision over the work.

P - 5 BID PRICE The price for performing the work under this contract shall include all costs that may be required of the Contractor to complete the required work, including labor, materials, sales tax, and all other costs, unless otherwise specified.

P - 6 DESIGN INFORMATION If the meaning and intent of the specifications are not clear to a Bidder, he shall request clarification or interpretation from the Director at least seven working days before the date of receipt of bids. If necessary, a clarifying addendum will be delivered to all parties who obtained specifications, and such addendum will be an incorporated part of the specifications.

The City will not be responsible for oral instructions or information concerning the specifications or the work given out by its officers, employees, or agents, to prospective bidders.

Inquiries of a technical nature regarding the above-described work or the contract plans and specifications may be directed to the Bureau of Energy Conservation, 949 Presidio Avenue, San Francisco, California 94115, telephone (415) 921-2704.

P - 7 ACCESS TO THE SITE DURING BIDDING PERIOD Arrangements to visit the sites during the bidding period shall be made by contacting Barbara Moy, Bureau of Energy Conservation, (415) 921-2704.

P - 8 PROJECT SCHEDULING

1. Work Period

a. Standard Work Period: the standard work week shall be Monday to Friday, and the typical work day shall be from 6:00 p.m. to 2:30 a.m. except as may be otherwise authorized by the City.

2. General Description and References

a. The Contractor shall be responsible for the development of a schedule, which shall provide a practical work plan, under which the project shall be completed within the contractual time period. The Contractor's schedule duration shall not exceed the time allowed for the completion of the work. No contingency activities will be incorporated into the schedule. The schedule must

demonstrate the order and sequence of all significant work activities, including the interdependence between work activities. In addition, the schedule must demonstrate recognition of the procurement of critical materials and equipment; and provide a schedule of submittals of samples, and/or shop drawings and, for ordering equipment or materials which could have a schedule impact.

b. The schedule submitted shall be of a sufficient level of detail to assure adequate planning and execution of the work; and such that, in the judgement of the City, it provides an appropriate basis for acceptance of the proposed schedule for monitoring and evaluation of the progress of the work.

3. Schedule Development, Submittal and Acceptance

a. As described above, the Contractor shall be responsible for the schedule content. He shall provide, in a timely and convenient fashion, all information regarding work operations, sequence of work, breakdown of the work into individual activities, and time estimates for these individual activities. He shall also furnish a cost-per-activity. The City may require a substantiation of the work/quantities included in an activity cost. The activity costs may be used for the basis of progress payments, and are subject to acceptance by the City.

b. After the Notice of Contract Certification has been given to the Contractor, the City will meet with him to discuss schedule format. The Contractor must follow the format given, and begin preparation of the network representation of the contractor's schedule. It is anticipated that it will be necessary for this work to proceed concurrently with the Contractor's finalization of his cost information.

c. The network will show the sequence and interdependence of activities as planned by the Contractor; and will be drafted to show a continuous flow from left to right, and will provide a logical representation of the work to be accomplished. It is anticipated that the work breakdown into individual activities will be such that the average activities will range in duration from 3 to 15 days. The City requires that the Contractor state, in writing, how many (eight-hour) work shifts are included per day, and how many days per week the Contractor intends to work; both of which will be subject to approval by the City. Activities on the network will consist of not only the actual installation work, but also procurement of materials and equipment, and installation and testing of major and/or critical items.

d. Within 15 days after the Notice of Contract Certification, the Contractor shall be responsible for the submittal of a preliminary performance schedule. This schedule will be prepared from the same base material as the detailed schedule; and shall show the Contractor's general approach to the overall project, with a detailed plan of mobilization, procurement, and installation during the first 45 days of the contract. Preparation of the preliminary schedule shall not be allowed to delay the development of the detailed schedule.

4. Bid Breakdown

The cost of each network activity shall be submitted by the Contractor. This submittal shall also be within 45 calendar days after the date of certification of this contract. The total value of the activity costs shall equal the total bid price. After revision, if required and accepted by the City, progress payments may be based upon the cost, related to mutually-agreed-upon progress as shown on the revised network.

5. Progress Payments

a. Monthly progress payments will be made, based on the total value of activities completed, or partially completed, as determined by the City; with participation of the Contractor, and based upon the approved activity costs. Such payments will be in an amount in accordance with the General Provisions, Sections 80 through 87. The accumulated retainage will be shown as a separate item in this payment summary.

b. If the Contractor fails to, or refuses to, participate in the progress evaluation with the City, the Contractor shall be deemed to not have provided the regular progress data; and shall not be entitled to progress payment, unless and until he has agreed to such progress and network revisions with the City.

6. Responsibility for Work Completion

a. The Contractor agrees that, whenever it becomes apparent from the current monthly progress evaluation and updated schedule data, any milestone completion dates and/or contract completion dates will not be met, he will take some or all of the following actions (and any others he may deem necessary) at no additional cost to the City:

(1) Increase installation manpower in such quantities and crafts as will substantially eliminate, in the judgement of the City, the backlog of work.

(2) Increase the number of shifts per work day, work days per week, or amount of construction equipment, or any combination of the foregoing, sufficient to substantially eliminate, in the judgement of the City, the backlog of work.

(3) Reschedule activities to achieve maximum practical concurrency of accomplishment.

b. The effect of the Contractor's planned corrective action shall be incorporated into a revised network schedule, to determine whether the planned action can achieve the original schedule. If the original schedule cannot be achieved, additional corrective action shall be taken by the Contractor until the original schedule is projected by analysis or until all possible alternatives are exhausted.

c. The submission of an amended schedule will not relieve the Contractor of the responsibility to notify the City, in writing, of all anticipated potential delays in the prosecution of the work.

d. Once the Contractor starts on any part of the work which affects public convenience, health, or safety, he shall diligently and expeditiously prosecute such work until it is no longer, in any respect, a public inconvenience or hazard. If such considerations necessitate accelerating any part of the work, the Contractor shall, once so directed, concentrate his efforts on such part of the work, at no cost to the City.

e. Contract or milestone completion times will be adjusted only for causes specified in this contract. In the event that the Contractor requests an extension of any milestone completion date and/or contract completion date, he shall furnish such justification and supporting evidence as the City deems necessary, to determine whether the Contractor is entitled to additional time under the provisions of the contract.

f. Each request for the change in any milestone completion date and/or contract completion date shall be submitted, in writing, by the Contractor within 7 days after the beginning of the delay for which a time extension is requested (unless the City grants a greater period of time). No time extension will be considered for a request which is not submitted within the foregoing time limit.

g. After receipt of a request for a time extension, the City will make its finding of facts and its decision thereon, and will advise the Contractor in writing.

h. If the City finds the Contractor to be entitled to an extension of any milestone completion date and/or contract completion date under the provisions of the contract, the City's determination of the total number of days extension will be based upon the data relevant to the extension.

i. The Contractor acknowledges and agrees that the "non-critical" activities which do not in fact actually affect any milestone completion dates or contract completion date shown on the CPM network at the time of the delay, will not be the basis for a change thereto.

j. Except as otherwise noted, no direct payment will be made for the work included in Special Provision "8", and all direct costs shall be borne by the Contractor as Incidental Expense, as defined in Section 108 of the DPW Standard Specifications.

9 - 9 PRECONSTRUCTION CONFERENCE After the Contractor has completed his plans for pursuing the work, but before actually commencing work, he shall notify the Director through Barbara Moy at 921-2704, and schedule a preconstruction conference to be held at 949 Presidio Avenue, San Francisco, on a date acceptable to all parties.

S -10 SPECIAL NOTICE REGARDING CERTIFICATION If this contract is not certified by the Controller of the City and County of San Francisco within 60 days after the award of the contract by the Public Utilities Commission, the Public Utilities Commission may cancel the award of contract and there shall be no liability on the City and County of San Francisco, the Public Utilities Commission, or any member thereof, by reason of the cancellation of said award of contract.

S -11 DRAWINGS AND LIGHTING SCHEDULES Drawings and Lighting Schedules furnished as part of these specifications are listed in the last section of the Table of Contents.

S -12 TIME OF COMPLETION The Contractor shall complete all work under this contract within 180 calendar days from and including the first Monday after the date on which he receives the the Notice of Certification of the contract

P-13 LIQUIDATED DAMAGES (Amending Section 78) By entering into this contract, Contractor agrees that liquidated damages shall be One Hundred Dollars (\$100.00) per day for each day of delay beyond the scheduled completion date, as adjusted for unavoidable delays.

When the actual progress of the work indicates that completion of the work may be delayed beyond the scheduled completion date, as extended for unavoidable delays, a sum representing the projected liquidated damages shall be deducted from any money due to the Contractor. If subsequent to the withholding of such projected liquidated damages, the progress of the work indicates that the number of days relative to such withheld amount is reduced or eliminated, the corresponding amount will be paid to the Contractor at the time of the next payment.

Should the money due or to become due to the Contractor be insufficient to cover such agreed liquidated damages, then the Contractor forthwith shall pay the remainder to the City and County.

S-14 MANUFACTURER'S RECOMMENDATIONS If the manufacturer of any material or equipment which is to be incorporated into the work recommends installation methods and procedures, the Contractor shall observe strictly all such recommendations which are not in conflict with the other requirements of these specifications.

EF-15 CONTRACTOR'S FACILITIES Locations of sanitary facilities, storage areas, parking and other Contractor installations shall be subject to the prior approval of the Director. All such installations and areas shall be removed or cleared upon completion of the contract.

P-16 EMERGENCY WORK If, during the progress of this contract, the Contractor's laborers should be absent from the locations of the work at a time when any failure or faulty condition of the Contractor's work requires emergency action in the public interest, the City shall have the right to make repairs or corrections, as required, with its own forces at the Contractor's expense.

P - 17 LAWS AND REGULATIONS (Supplementing General Provision 48.)
The work under this contract shall comply with applicable requirements and recommendations set forth in the following:

1. Public Works Code, Building Code, Electrical Code and other applicable ordinances of the City and County of San Francisco;
2. Standard Specifications of the Department of Public Works, City and County of San Francisco dated 1971 (herein referred to as "DPW Standard Specifications");
3. American National Standards Institute (ANSI);
4. Title 24, California Administrative Code;

The Contractor shall be liable for any damage or losses resulting from negligence or failure to follow the specifications or applicable safety or other regulations.

P - 18 SAFETY REQUIREMENTS The Contractor shall conduct his operations in accordance with the rules and regulations of the California Division of Industrial Safety and the current requirement of the California Occupational Safety and Health Administration (Cal. OSHA).

P - 19 UNAVOIDABLE DELAYS (Amending Section 72 of the General Provisions)

No extension of time will be granted for unavoidable delay for any cause unless the Contractor can demonstrate to the satisfaction of the Director by means of critical path analysis and/or other documentation as necessary, that a delay in the critical work did in fact occur and that the delay was beyond the control of the Contractor and could not have been avoided through the exercise of care, prudence, foresight and diligence. Critical work is defined as work which if delayed would cause a delay in final completion of the entire work which could not be compensated for by revising the sequence of the Contractor's operations.

However, the interruption of work due to material shortages, inability of Contractor to procure materials, labor shortages, inability of Contractor to procure labor shall not be considered causes of unavoidable delay under this contract, except as specifically approved by the Public Utilities Commission.

S - 20 INTERPRETATION OF SPECIFICATIONS, ETC. The Contractor's attention is directed to Sections 21, 24 and 25 of the General Provisions of the contract concerning interpretation of specifications; conflicts and omissions in specifications, and standards to apply where detailed specifications are not furnished.

S - 21 CHANGES AT CONTRACTOR'S REQUEST If the Contractor, on account of conditions developing during the progress of the work, finds it impracticable to comply strictly with these specifications and applies in writing for a change of requirements or of methods of work, minor design changes may be authorized by the Director, if not detrimental to the work and if without additional cost to the City.

S - 22 TECHNICAL DATA SUBMITTED BY THE CONTRACTOR The Contractor shall furnish six (6) copies of required certificates and any data published by the manufacturer for each piece of Contractor-supplied material prior to its being used at the job site.

The Contractor shall make all of the necessary submittals no later than thirty calendar days after the starting date of the contract as indicated in the notice to proceed. He shall allow two weeks, from the time they are transmitted, for the City to review and respond to the submittals.

As a general rule, Contractor submittals show information supplementary to the contract drawings and specifications. Should the Contractor wish to use a manufacturer's standard or other submittal for the purpose of requesting a change to a contract requirement, he shall call specific attention to the change requested and to the contract drawing or specification section affected. Unless such notation is clearly evident in the submittal, no change to a contract requirement is authorized, even if the submittal is stamped "Approved as to Design."

S - 23 CONFLICT BETWEEN PARTS OF SPECIFICATIONS If there is any conflict between the plans and specifications or between any parts of the specifications, they shall govern in descending order of precedence as follows:

- 1) Amendments
- 2) Special Provisions
- 3) Technical Specifications
- 4) Contract Drawings
- 5) General Provisions

In the case of the drawings, the drawings bearing the highest Change Number, unless otherwise specified, shall prevail over, and be substituted for, such drawing bearing a lesser Change Number. Any reference to such drawings shall be considered to have been changed accordingly.

- P - 24 MATERIALS FURNISHED BY CONTRACTOR All materials and equipment furnished by the Contractor shall be new, in first-class condition and subject to the approval of the Director. They shall be standard products of manufacturers regularly engaged in the production of such materials and equipment and shall be the manufacturer's latest approved design. Materials and equipment shall be delivered to the jobsite in unbroken packages, reels, or other form of container. Items not acceptable to the Director shall be immediately removed from the jobsite.
- P - 25 OPERATION AND MAINTENANCE MANUALS The Contractor shall provide three (3) manuals in bound form, containing data, covering maintenance and operation of each major item of Contractor-furnished equipment for each of the four facilities.
- P - 26 MANUFACTURER'S RECOMMENDATIONS If the manufacturer of any material or equipment which is to be incorporated into the work recommends installation methods and procedures, the Contractor shall submit this information along with the technical data and observe strictly all such recommendations which are not in conflict with the other requirements of these specifications.
- P - 27 DRAWINGS AND SAMPLES FOR APPROVAL Shop drawings and samples of Contractor-designed equipment shall be submitted to the Director for approval prior to the installation of any of the five major types of Optical Reflector Systems specified in the Technical Specifications.

TECHNICAL SPECIFICATIONS

1.0 SCOPE OF WORK The work to be done under this Contract consists of designing, furnishing, and installing energy conservation lighting retrofit systems for existing light fixtures. Various techniques will be used due to the wide variety of incandescent and fluorescent light fixtures and lamps. The goal of this Contract is to reduce lighting loads while, at the same time, maintaining or improving lighting quality. The work will be performed at the following locations in the City and County of San Francisco:

- City Hall - Civic Center at Polk Street
- City Hall Annex - 450 McAllister Street
- Main Public Library - Civic Center at Larkin Street
- Hall of Justice - 850 Bryant Street

1.1 DESCRIPTION OF WORK The work to be performed includes the following:

- A. Designing and installing optical reflector systems on existing light fixtures.
- B. Delamping and relamping various incandescent and fluorescent light fixtures
- C. Replacement of discolored and/or broken lamp shields and side panels with prismatic lenses
- D. Disconnecting ballasts no longer needed due to delamping
- E. Installation of ballast by-pass devices (shunts) on fixtures when one lamp is removed from a two-lamp series ballast.
- F. Cleaning all incandescent and fluorescent light fixtures.
- G. Removing entire fixtures from service by disconnecting ballasts and removing lamps

1.2 STANDARD REQUIREMENTS The following apply to all fixtures in the four locations of this project whether or not the fixture is listed in the Lighting Schedules.

- A. Fluorescent fixtures shall be thoroughly cleaned, including lenses, side panels, reflectors, louvers, etc.

- B. Fluorescent fixtures shall be relamped with City-furnished standard "warm-white" lamps.
- C. Actions shall be taken to ensure that all fixtures remain level.
- D. Lamp shields and side panels which are broken and/or discolored shall be replaced with new shields or panels of the material specified herein. Replacements or additions shall be made in order to obtain uniform fixture appearance in common areas.

2.0 MATERIALS FURNISHED BY CITY The City shall furnish lamps necessary to complete the work, as identified in Lighting Schedules. The Contractor shall be responsible for installation of lamps according to manufacturer's recommendations. The Contractor shall also be responsible for the purchase of additional lamps should lamps become damaged or broken due to Contractor's negligence.

2.1 MATERIALS FURNISHED BY CONTRACTOR The Contractor shall be responsible for providing all other materials, such as lamp shields, optical reflectors, side panels, shunts, and hardware, necessary to assemble and install equipment, whether or not on the Lighting Schedules, drawings or described in these Specifications.

2.1.1 LAMP SHIELDS Shields shall be clear acrylic prismatic lenses with female conical prisms, ALP-120 or equal. Composition shall be 100% methyl methacrylate and shall not have any polystyrene in the plastic formation. Thickness shall be .100 inch (nominal) for widths less than 18 inches and .110 inch (nominal) for widths over 18 inches and not greater than 24 inches. Widths greater than 24 inches shall be .150 inch (nominal) in thickness.

2.1.2 SIDE PANELS Side panels used to replace existing discolored and/or broken panels shall be white diffuse acrylic composed of 100% methyl methacrylate with no polystyrene in the plastic formation. Thickness shall be .110 inch (nominal). Panels shall be installed in lengths and sizes to meet existing frames.

.0 RETROFIT TECHNIQUES Several techniques to retrofit lighting systems shall be used because of the wide variety of fixture types, sizes, and uses. The specific technique used for each fixture type is identified in the Lighting Schedules.

.0.1 RELAMPING All fluorescent lamps shall be relamped with standard "warm white" lamps, whether or not listed in Lighting Schedules.

FC6T9/WW/RS

F20T12/WW

F40WW

F48T12/WW

F72T12/WW

F96T12/WW

Incandescent lamps shall be relamped only as specified in Lighting Schedules.

.0.2 DELAMPING/BALLAST DISCONNECTION Fluorescent fixtures shall be delamped as specified in Lighting Schedules. The delamping code used in the Lighting Schedule is as follows:

- L1: Delamp 2 lamps; disconnect ballast
- L2: Delamp 1 lamp; disconnect ballast
- L3: Delamp 1 lamp; install by-pass (shunt)

NOTE: When delamping a 4-lamp fixture to 2 lamps, remove outer lamps.

.0.3 REMOVING FIXTURES FROM SERVICE Fixtures designated for removal from service shall be left in place, cleaned, delamped and ballasts disconnected.

.0.4 DESIGN CRITERIA - OPTICAL REFLECTOR SYSTEMS

Optical reflector systems shall be designed and installed by the Contractor to direct all of the lamp light distribution downward and eliminate indirect lighting characteristics of the fixtures. Five types of reflector systems to be used are described below. The systems will have variations according to actual fixture configurations.

A. Optical Reflector System "RR-1" (See Drawing 001 shall provide a reflector for the top of the fixture to direct all lamp light distribution downward.

1. The reflector system shall be designed for each specific fixture type designated for the RR-1 retrofit technique.

2. The reflector shall cover only the top of the fixture from the ballast and wireway to the outer edge of the fixture. Ends shall be fitted with end caps as needed to avoid light leaks.
 3. The reflector shall be secured to the existing fixture wireway in a manner subject to the approval of the Director.
 4. Fabrication shall be of sheetmetal between 20 and 24 gauge, depending on the specific fixture type.
 5. Reflectors shall have a satin white baked acrylic enamel finish. Metal shall be degreased and primed before finish painting.
 6. Minimum reflectance of the finish shall be 75 percent.
- B. Optical Reflector System "RR-2" (See Drawing 002) shall provide a reflector for the top of the fixture to direct all lamp light distribution downward.
1. The reflector system shall be designed for each specific fixture type designated for the RR-2 retrofit technique.
 2. The reflector system shall be secured to the existing fixture wireway in a manner subject to approval of the Director.
 3. The system shall provide a vertical side approximately 4 inches (nominal) and a 1 inch (maximum) flange at the lowest edge to carry a flat clear prismatic lamp shield.
 4. Lens openings shall not exceed 4 feet in length or fraction thereof. Each 4 foot length shall be supported in width and at the ends of the lenses. The system will be used when removal of louvers or diffusers result in loss of lens support.
 5. The system shall be designed so that the "lift and lay" approach may be used for flat prismatic panels.
 6. Fixture ends of individual fixtures or the ends of continuous rows of fixtures shall be closed with end caps.

7. Metal joint shields shall be provided for the sides of the individual reflector lengths to prevent light leaks at the tops and sides of fixtures.
 8. Fabrication shall be of sheetmetal between 20 and 24 gauge, depending on specific fixture type.
 9. Reflectors shall have a satin white baked acrylic enamel finish. Metal shall be degreased and primed before finish painting.
 10. Minimum reflectance of the finish shall be 75 percent.
- C. Optical Reflector System "RR-3" (See Drawing 003) shall be designed to maximize the efficiency of the fixture, and to eliminate 50% of the lamps in the fixture while retaining the previous appearance of the fixture.
1. The reflector system shall be designed for each specific type designated for the RR-3 retrofits technique.
 2. The reflector shall be secured to the existing fixture wireway in a manner subject to the approval of the Director.
 3. Fabrication shall be of .0325 inch (minimum) aluminum alloy 5054-H32 roller level.
 4. The design shall be such that there is a uniform surface on the lens shielding the lamps with not more than nominal shadows or striations.
 5. The specular reflectance of the reflector shall be 95 percent minimum (measured within 10 milligrains cone angle) as tested by the Industrial Testing Laboratories in Berkeley, California, or equivalent independent testing laboratory. Total reflectance shall be 95 percent minimum. Silver is the preferred material for these reflective characteristics.
 6. There shall be no noticeable deterioration or loss of reflectance after 500 hours of exposure to 300°F (149°C).
 7. The reflective material will not discolor, crack or craze when exposed to conventional fluorescent lighting.
 8. The reflector shall be made as a rigid material capable of being attached to the base of the fixture without disturbing or affecting the fixture wiring.

D. Optical Reflector System "RR-4" (See Drawing No. 004)
shall provide a reflector for the top of the fixture
to direct all lamp light distribution downward.

1. The reflector system shall be designed for each specific fixture type designated for the RR-4 retrofit technique.
2. The reflector system shall be secured to the existing fixture wireway in a manner subject to the approval of the Director.
3. Fabrication shall be of .0325 inch (minimum) aluminum alloy 5054-H32 roller level.
4. The specular reflectance of the reflector shall be 85 percent minimum (measured within 10 milligrains cone angle) as tested by the Industrial Testing Laboratories in Berkeley, California or equivalent independent testing laboratory. Total reflectance shall be 85 percent minimum. Specular aluminum is the preferred material for these reflective characteristics.
5. There shall be no noticeable deterioration or loss of reflectance after 500 hours of exposure to 300°F (149°C).
6. The reflective material will not discolor, crack, or craze when exposed to conventional fluorescent lighting.
7. The reflector shall be made as a rigid material capable of being attached to the base of the fixture without disturbing or affecting the fixture wiring.

E. Optical Reflector System "RR-5"
shall be designed to maximize the efficiency of incandescent lamps.

1. The reflector system shall be designed for each specific fixture type designated for the RR-5 retrofit technique.
2. Reflector system shall be "bell shaped" in order to maximize angles of reflectance.
3. Fabrication shall be of zinc-coated aluminum with a textured interior surface.
4. The reflector system shall be securely fitted to a medium screw base porcelain lamp extension.

4.0 LIGHTING SCHEDULES Quantities and sizes noted in the Lighting Schedules are estimates. Each fixture type shall be retrofitted as noted in Lighting Schedules, and as described in these Specifications.

4.0.1 LIGHTING SCHEDULE ABBREVIATIONS

A. Fixture Types

- PH Pendant Hung
- SM Surface Mantled
- LC Luminous Ceiling
- R Recessed
- RLC Recessed Luminous Ceiling

B. Retrofits

- Reflector: Optical Reflector Systems, Section 3.0.4

 RR1
 RR2
 RR3
 RR4
 RR5
- Lamping: Delamping/Ballast Disconnection, Section 3.0.2

 L1
 L2
 L3

EXISTING LIGHTING SYSTEM								RETROFIT	
FIXTURE TYPE	SIZE	LAMP TYPE	LAMPS/ FIXTURE	APPROX. #	LAMP SHIELD	SIDE PANEL	TYPICAL LOCATIONS	REFLECTOR (RR)	LAMPING (L)
1 PH	1'x8'	F96T12/SL	4	326	½"x½"x½" plastic	plastic	Room 101	1	1
1A PH	1'x4'	F40	4	60	½"x½"x½" plastic	plastic	Room 101	1	1
1B PH	1'x6'	F72T12/SL	4	16	½"x½"x½" plastic	plastic	Room 101	1	1
2 PH	1'x8'	F96T12/SL	4	159	1"x1"x1" plastic	plastic	Room 109	1	1
2A PH	1'x4'	F40	4	123	1"x1"x1" plastic	plastic	Room 109	1	1
3 PH	1'x8'	F96T12/SL	4	199	2"x2"x2" metal	plastic	Room 156	1	1
3A PH	1'x4'	F40	4	4	2"x2"x2" metal	plastic	Room 156	1	1
4 PH	16"x4'	F40	4	148	2"x2"x2" metal	glass	Room 167	1	1
5 PH	1'x8'	F96T12/SL	4	86	clear prismatic	-	Room 107	-	1
5A PH	1'x4'	F40	4	1	clear prismatic	-	Room 107	-	1
6 PH	1'x4'	F40	4	21	-	-	Post Office	-	1
7 SM	2'x4'	F40	4	21	white diffuser or clear prismatic	-	Room 206	3	1
7A SM	2'x6'	F72T12/SL	4	71	white diffuser or clear prismatic	-	Room 206	3	1
7B SM	2'x8'	F96T12/SL	4	104	white diffuser or clear prismatic	-	Room 206	3	1
7C SM	2'x8'	F96T12/SL	2	91	white diffuser or clear prismatic	-	Room 206	3	-

EXISTING LIGHTING SYSTEM								RETROFIT	
FIXTURE TYPE	SIZE	LAMP TYPE	LAMPS/ APPROX. #		LAMP SHIELD	SIDE PANEL	TYPICAL LOCATIONS	REFLECTOR (RR)	LAMPING (L)
8 R	2'x4'	F40	4	144	clear prismatic	-	Computer Room	3	1
9 R	1'x4'	F96T12	2	14	white diffuser	-	Room 237	3	1
10 SM	2'x4'	F40	4	23	clear prismatic drop-square	-	Room 167	-	1
11 SM	2'x4'	F40	4	127	clear prismatic drop	-	Room 334	-	1
12 R	4'x4'	F40	8	6	white diffuser	-	Room 463		
13 PH	16"x4'	F40	4	18	½"x½"x½" plastic	plastic	Room 167	-	1
14 SM	16"x4'	F40	4	38	clear prismatic wraparound	-	Room 167	-	1
15 PH	2'x2'	F20T12	4	40	white diffuser	-	3rd floor corridor	-	-
16 PH	1'x4'	F40	4	18	clear prismatic	-	Room 151	1	-
17 PH	2'x8'	F96T12/SL	4	12	clear prismatic drop	-	Room 400	-	-
18 PH	2'x8'	F96T12/SL	4	116	½"x½"x½" plastic	plastic	Room 402	1	1
19 PH	18"x8'	F40	4	18	clear prismatic	plastic	Room 403	1	1
20 SM	10"x4'	F40	2	32	clear prismatic	-	Room 404	-	-
21 SM	6"x4'	F40	2	28	clear prismatic	-	Room 436	-	-

EXISTING LIGHTING SYSTEM							REFLECTOR LAMPING (RR) (L)	
FIXTURE TYPE	SIZE	LAMP TYPE	LAMPS/ APPROX. #		LAMP SHIELD	SIDE PANEL	TYPICAL LOCATIONS	
			FIXTURE	FIXTURES				
22 PH	15"x8'	F96T12/SL	4	18	clear prismatic	-	Room 426	1 1
23 SM	6"x4'	F40	1	37	white diffuser	-	Room 206	- -
24 SM	1'x8'	F96T12/SL	4	6	louver	plastic	basement cafeteria	1 1
25 PH	16"x8'	F96T12/SL	4	81	2"x4"x2" metal	plastic	Room 267	1 1
26 PH	1'x8'	F96T12/SL	4	34	1"x3"x1" metal	glass	Room 167	2 1
26A PH	1'x4'	F40	4	3	1"x3"x1" metal	glass	Room 167	2 1
27 PH	8"x8'	F96T12/SL	2	3	metal louver	glass	Room 413	2 1
28 PH	10"x8'	F40	4	4	½"x½"x½" louver	plastic	Room 420	1 -
29 PH	1'x8'	F96T12/SL	3	22	clear prismatic	plastic	Room 267	1 1
30 SM	"U"x4'	F40	1	1	white diffuser	-	Room 159	- -
31 R	4'	F40	1	12	louver	-	Room 160	- -
32 strip	4'	F40	1	12	-	-	Room 160	- -
33 PH	1'x8'	F96T12/SL	2	25	industrial	-	Room 49	- -
33A PH	1'x4'	F48T12	2	5	industrial	-	Room 50	- -
33B PH	1'x4'	F48T12	3	6	industrial	-	Room 50	- -
34 chain hung		500MS/SBIF	1	7	concentric ring	-	Utility Audit	5 -
34A PH		300MS/SBIF	1	25	concentric ring	-	Utility Audit	5 -
35 SM		60A	2	100	white diffuser	-	Rest Rooms	- -
36 SM		100A	1	100	-	-	throughout bldg.	- -
37 SM		200A	1	50	-	-	throughout bldg.	- -

EXISTING LIGHTING SYSTEM								RETROFIT	
FIXTURE TYPE	SIZE	LAMP TYPE	LAMPS/ APPROX. #		LAMP SHIELD	SIDE PANEL	TYPICAL LOCATIONS	REFLECTOR (RR)	LAMPING (L)
			FIXTURE	FIXTURES					
1 PH	1'x8'	F96T12/SL	2	316	glass prismatic	glass	all floors	1	3
2 PH	1'x4'	F48T12/SL	2	39	glass prismatic	glass	most floors	1	3
3 PH	18"x4'	F40	4	37	glass	glass	1st floor	1	1
4 PH	16"x8'	F40	8	14	metal louver	plastic	1st floor	2	1
5 PH	1'x8'	F96T12/SL	4	7	½"x½"x½" louver	plastic	1st floor	1	1
6 PH	1'x4'	F48T12/SL	4	1	½"x½"x½" louver	plastic	1st floor	1	1
7 RLC	6'x13'	F40	12	4	hex louver	-	1st floor	3	1
8 SM	1'x4'	F40	4	34	plastic wraparound	-	corridor	-	1
9 C		93A/SS	1	14	bare or glass bowl	-	stairwells	5	-
10 C		200A	1	17	bare	-	basement	5	-
11 C		93A/SS	1	6	bare or glass bowl	-	rest rooms	5	-

SPECIAL CONDITIONS

<u>FIXTURE TYPE</u>	
1	Relocate lamp to center of wireway. Provide new wireway coverplate
2	Relocate lamp to center of wireway. Provide new wireway coverplate
9	Relamp with 54A/SS
10	Relamp with 93A/29/49
11	With glass bowl: relamp with 93A, no RR-5 Without bowl: relamp with 54A/SS, with RR-5

EXISTING LIGHTING SYSTEM						
FIXTURE TYPE	SIZE	LAMPS/ APPROX. #		LAMP SHIELD	SIDE PANEL	TYPICAL LOCATIONS
		LAMP TYPE	FIXTURE			
1 R	1'x4'	F40	2	4508 clear prismatic	-	offices
		• Remove 1488 fixtures (minimum) from service				
2 R	1'x4'	F40	3	463 clear prismatic	-	offices
		• Remove as many fixtures from service as feasible				
		• Fixtures in service--remove center lamp, disconnect ballast				
3 R	4'x4'	F40	6	54 white drop	-	elevator lobbies
		• Remove 2 lamps/fixture, disconnect ballast				
3A R	4'x4'	F40	6	183 white drop	-	corridors, cafeteria
4 SM	"U"x8'	F40	2	571 white diffuser	-	corridors
		• Remove every other fixture in continuous rows from service or remove every other lamp and install shunt, as conditions dictate				
4A SM	"U"x4'	F40	1	62 white diffuser	-	corridors
		• Remove every other fixture in continuous rows from service				
5 PH	1'x4'	F40	2	60 metal louvers (some missing)	plastic	stairwells
		• Remove 1 lamp, install shunt				
6 R	2'x4'	F40	2	10 white drop	-	elevator lobbies
		• Remove as many fixtures from service as feasible				

EXISTING LIGHTING SYSTEM						
FIXTURE TYPE	SIZE	LAMPS/ APPROX. #		LAMP SHIELD	SIDE PANEL	TYPICAL LOCATIONS
		LAMP TYPE	FIXTURE			
7 R	2'x4'	F40	3	72 clear prismatic	-	Room 551
		● Remove center lamp, disconnect ballast				
8 RLC	12'x4' bay	F40	36	11 36(2'x4') plastic	-	Court Rooms
9 PH	Indust.	F40	3	41 -	-	service elevator areas
		● Remove 2 lamps, disconnect ballast. Use RR-4 over remaining center lamp.				
10 PH	Indust.	F40	2	350 -	-	ground floor
		● Remove 1 lamp, install shunt. Use RR-4 over remaining lamp.				
11	strip 8' tandem	F40	2	176 -	-	garage
		● Remove 1 lamp, install shunt. Use RR-4 over remaining lamp.				
11A	strip 8' tandem	F40	4	45 -	-	garage
		● Remove 2 lamps on one side, disconnect ballast. Use RR-4 over remaining lamps.				
12 SM	4"x4'	F40	2	12 plastic wraparound	-	rest rooms

LIGHTING SCHEDULE D - MAIN PUBLIC LIBRARY, continued

FIXTURE TYPE	EXISTING LIGHTING SYSTEM					LAMP TYPE	LAMPS/ APPROX. #		LAMP SHIELD	SIDE PANEL	TYPICAL LOCATIONS	R E T R O F I T	
	SIZE	FIXTURE	FIXTURES	APPROX. #	LAMP		TYPE	TYPE				REFLECTOR (RR)	LAMPING (L)
12 SM	"U"x4'	F40	1	55	plastic					-	History Room	3	1
13 SM	2'x4'	F40	4	14	prismatic					-	3rd floor lobby Periodicals	-	1
14 PH	1'x8'	F96T12/SL	4	6	metal louver	plastic					Chief Main Lib. 3rd floor	2	1
15 R	4'x4'	F40	4	8	white plastic					-	Lurie Meeting Room	-	-
16 PH	18"x4'	F40	4	3	$\frac{1}{2}$ "x $\frac{1}{2}$ "x $\frac{1}{2}$ " plastic louver	plastic					Adult Services	-	1
17 PH	1'x8'	F96T12/SL	4	7	$\frac{1}{2}$ "x $\frac{1}{2}$ "x $\frac{1}{2}$ " plastic louver	plastic					Adult Services	-	1
18 PH	industrial	F96T12/SL	1	31	-	-					Rare Books Stacks	-	-
19 SM	1'x4'	F40	2	1	white drop					-	McAllister St. exit	-	3
20 PH	1'x4'	F40	3	72	$\frac{1}{2}$ "x $\frac{1}{2}$ "x $\frac{1}{2}$ " plastic louver	plastic					Periodicals	1	3
21 track lights		150PAR	1	14	-	-					Lurie Meeting Room	-	-
22 porcelain		60A	1	1079	-	-					Stacks	-	-
23 SM bullet		150R	1	18	-	-					Gallery 2nd floor	-	-
24 R eyeball		150R	1	6	-	-					Science Room	-	-
25 SM square		150A	4	8	-	-					Hall 1st floor	-	-

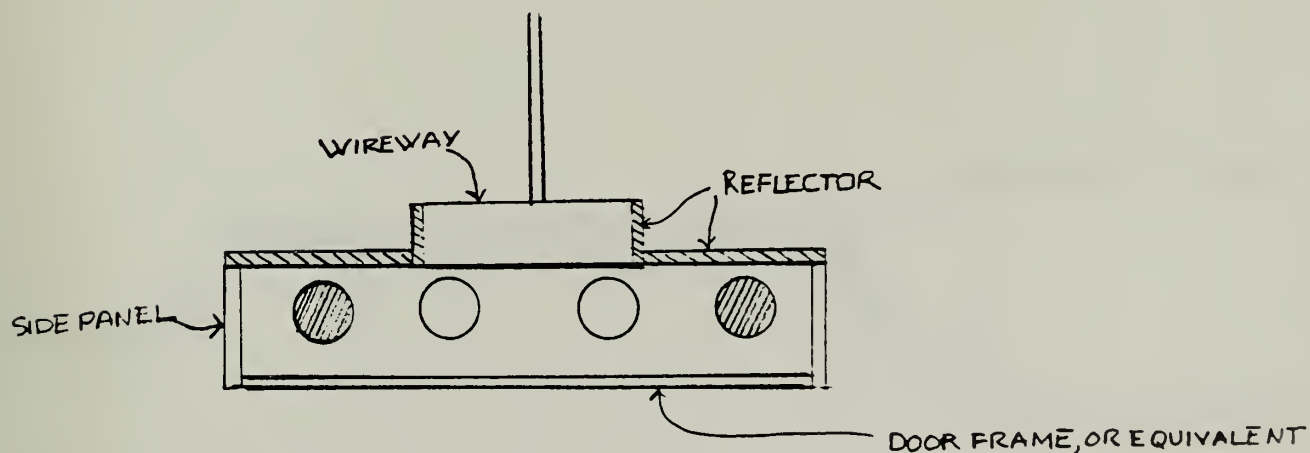
LIGHTING SCHEDULE D - MAIN PUBLIC LIBRARY, continued

SPECIAL CONDITIONS

FIXTURE
TYPE

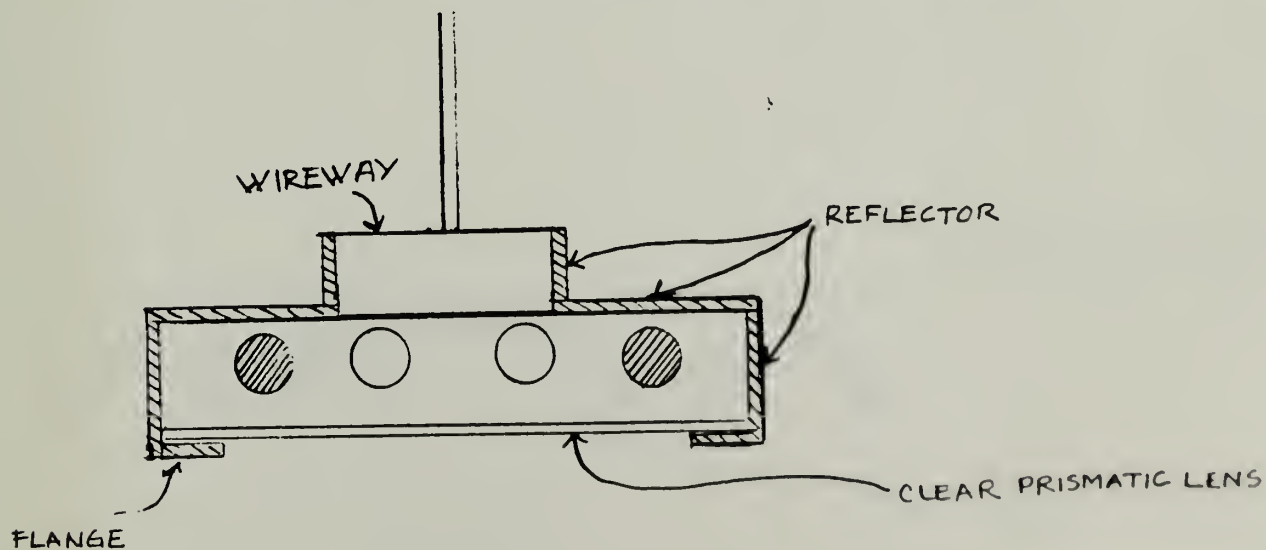
6	Remove 1 lamp, install new lens
6A	Remove 1 lamp, install new lens
9	Install new lens
9A	Install new lens
9B	Install new lens
12	Remove diffusers
18	Install clear impact sleeve with UV Light absorbing screens to protect books
19	Replace diffuser with clear prismatic lens
21	Relamp with 100PAR/SP 120 v. maximum
22	Relamp with 25A
23	Replace with 2-lamp fixture to light murals, 100PAR/SP or FL maximum
24	Remove louvers, install 75PAR/FL and/or 100PAR/SP 120 v.
25	Replace with 1'x4'x2(F40) lamp surface mounted fixture

SCHEMATIC SECTION - DRAWING 001



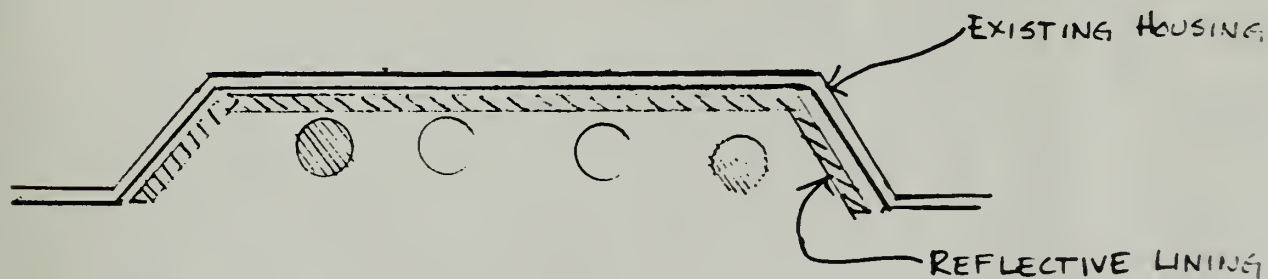
OPTICAL REFLECTOR SYSTEM RR-1

SCHEMATIC SECTION - DRAWING 002



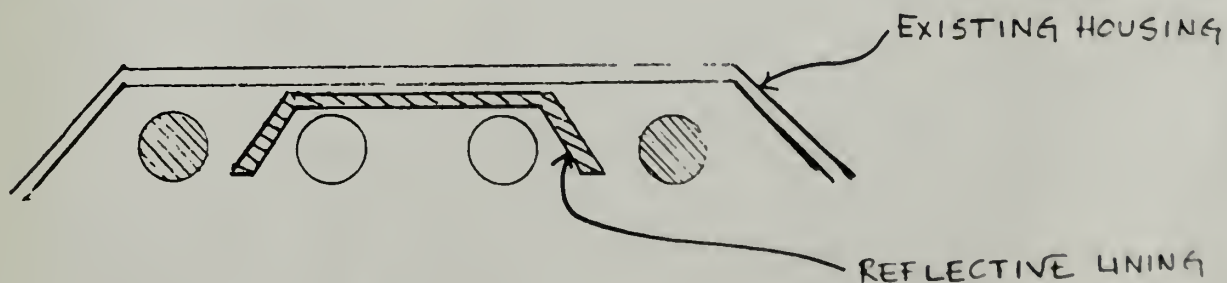
OPTICAL REFLECTOR SYSTEM RR-2

SCHEMATIC SECTION - DRAWING 003



OPTICAL REFLECTOR SYSTEM RR-3

SCHEMATIC SECTION - DRAWING 004



OPTICAL REFLECTOR SYSTEM RR-4

